



**INTEGRATED BILLING  
INSURANCE IDENTIFICATION &  
VERIFICATION INTERFACE**

**TECHNICAL MANUAL**

IB Version 2.0  
Patch IB\*2.0\*184, 246, 252, 271

January 2005

Department of Veterans Affairs  
VistA Technical Services  
Prepared by DAOU Systems, Inc.

## Revision History

*Note: The revision history cycle begins once changes or enhancements are requested to an approved SRS.*

[illegible]

# PREFACE

This is the Technical Manual for the Integrated Billing (IB) software package's electronic Insurance Identification and Verification Interface (IIV) which was first introduced as Patch IB\*2.0\*184. It is designed to assist IRM personnel in the operation and maintenance of the interface.

For information regarding use of the software, please refer to the Integrated Billing Insurance Identification and Verification Interface User Guide and the Integrated Billing User Manual.

For information on the installation of this interface, please refer to the IIV Installation Guide.

## ***Symbols***

The following are explanations of the symbols used throughout this manual.

<RET>            Press the RETURN or ENTER key.

<SP>            Press the SPACEBAR.

<^>            Up-arrow, which you enter by pressing the SHIFT key and the numeric 6 key simultaneously.

<?> <??> <???>            Enter single, double, or triple question marks to activate on-line help, depending on the level of help you need.

## ***Note to Users with Qume Terminals***

It is very important that you set up your Qume terminal properly. After entering your access and verify codes, you will see

Select TERMINAL TYPE NAME: {type} //

Please make sure that <C-QUME> is entered here. This entry will become the default. You can then press <RET> at this prompt for all subsequent logins. If any other terminal type configuration is set, options using the List Manager utility will neither display nor function properly on your terminal. The reports and error messaging system in the interface makes extensive use of the List Manager functions.

## ***Who Should Read this Manual?***

This manual is intended for technical IRM personnel who may be called upon to install and support this software.

# TABLE OF CONTENTS

<b>PREFACE</b> .....	<b>iii</b>
Symbols.....	iii
Note to Users with Qume Terminals.....	iii
<b>INTRODUCTION</b> .....	<b>1</b>
Overview .....	1
Functional Description.....	2
IIV Process Flow.....	3
VistA Registration Dialog.....	4
<b>IMPLEMENTATION AND MAINTENANCE</b> .....	<b>5</b>
General Notes Regarding Changes to this Software .....	5
Platform Requirements.....	5
Pre-Requisite Patch Requirements .....	5
Hardware Requirements.....	7
New Globals.....	7
Globals to Journal .....	7
Estimated Global Growth.....	8
HL7 Management .....	8
Bulletins .....	8
<b>TECHNICAL NOTES</b> .....	<b>9</b>
Namespace .....	9
File Number Space.....	9
New Routines.....	9
Modified Routines .....	10
File List with Descriptions.....	18
Modified Files – Detailed .....	20
File Protection.....	23
Input Templates.....	24
List Templates.....	25
New Mail Group .....	25
New Options for IIV .....	26
Modified VistA Options Included in Transport Global .....	29
Modified VistA Options Not Included in Transport Global .....	30
List of New Security Keys .....	31
Options Locked by Security Keys .....	31
List Manager Templates.....	32

Protocols .....	32
New HL7 Application Parameters .....	33
New HL Logical Links .....	34
Purging.....	34
<b>EXTERNAL INTERFACES .....</b>	<b>35</b>
HL7 Messaging with the Eligibility Communicator (EC) .....	35
HL7 Communication Setup .....	35
Data Sent to the Eligibility Communicator .....	36
Registration Request.....	36
Eligibility Inquiry .....	41
Data Received From the Eligibility Communicator.....	54
Registration Acknowledgement.....	55
Eligibility Response.....	59
Eligibility Inquiry Problem Messages .....	80
Table Updates .....	84
<b>APPENDIX A – TABLE OF IIV GENERATED MAILMAN MESSAGES .....</b>	<b>91</b>
<b>APPENDIX B – INCOMING DATA MAPPING.....</b>	<b>98</b>
<b>APPENDIX C – TROUBLESHOOTING .....</b>	<b>100</b>
How To Determine If Connectivity To Austin Is Lost... ..	100
How To Restore Connectivity To Austin.....	100
<b>APPENDIX D – eIIV IMPLEMENTATION QUICK CHECKLIST (IB*2.0*184 only) .....</b>	<b>103</b>
<b>GLOSSARY .....</b>	<b>105</b>



# INTRODUCTION

## *Overview*

The release of Integrated Billing patch IB\*2.0\*184 introduced electronic Insurance Identification and Verification (IIV).

The purpose of IIV is to automate:

- The discovery of health care insurance for those veterans that VA has no record of having insurance (Identification), and
- The determination of eligibility for claimed insurance (Verification)

This interface was planned and designed to be a Class I initiative with the coordination and assistance of the national IB team.

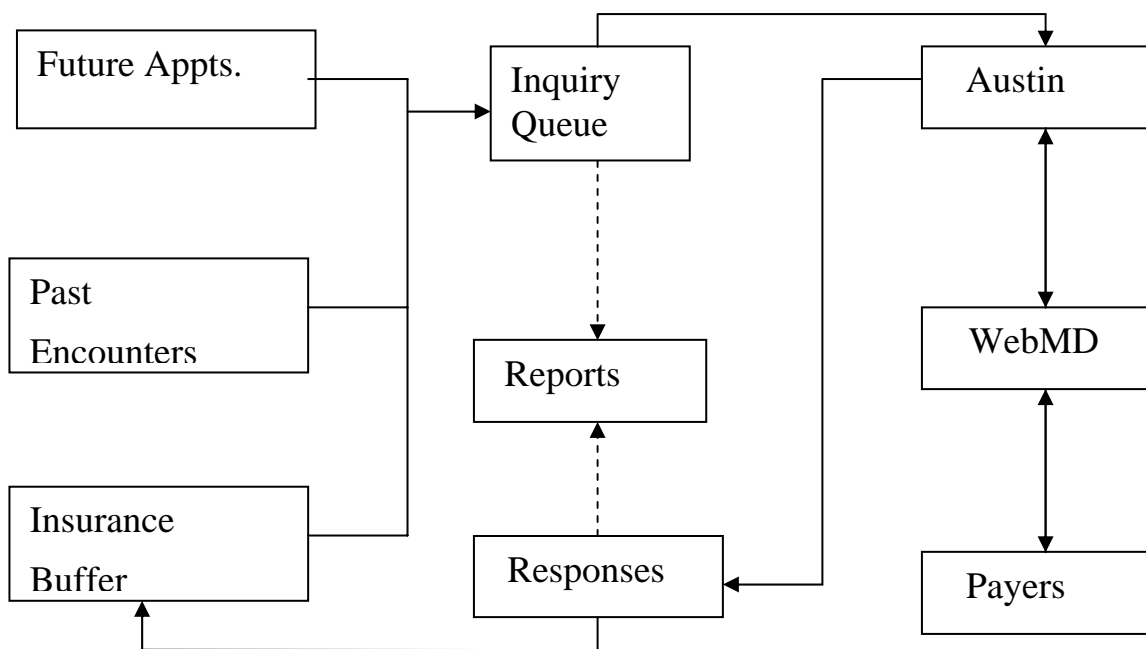
The software enhancements included in the patches that are described within this document directly support the following VHA program initiatives:

1. The VHA Revenue Cycle Improvement Plan approved by Secretary Principe in September, 2001, and particularly:
  - a. Recommendation 5 of that Plan, which calls for implementation of automated methods of identifying and verifying veteran insurance coverage.
  - b. Recommendation 3 of that Plan, which recommends adopting a national policy for the update of patient data no less frequently than every six months.
2. The VHA Office of Compliance and Business Integrity (CBI) Program Indicator No. 3a , which measures, among other things, whether patient insurance coverage is verified every six months.

The Technology Services Division of DAOU Systems Inc, 8401 Connecticut Ave. Suite 700, MD 20815, provided the interface between the existing IB software and the Eligibility Communicator (EC), which is initially located at the FSC in Austin, TX.

## Functional Description

The Insurance Identification and Verification project (IIV) provides an extension to the existing VistA Insurance Buffer functionality to enable electronic discovery and confirmation of third-party commercial health insurance coverage for registered VA patients. Each night a process is run, which compiles a batch of insurance eligibility inquiries based on activity within the system. Sources include unverified insurance information entered in the Insurance Buffer as well as patients that have scheduled appointments or have had past encounters, but have not had a recent verification of their insurance files. If a patient has no active insurance information on record, inquiries may be made to a user defined list of payers for that specific site, in an attempt to discover previously unknown coverage. These attempts by IIV to discover previously unknown insurance are called “identification inquiries”. Sites are able to tailor the selection of patients for the nightly batch through a set of parameters that allow control of the volume of electronic inquiries made, which sources should be considered and date range parameters.



**Figure 1.** Overview of IIV Process

Inquiries are then verified through an exchange of HIPAA-compliant electronic communications between the VistA system and a National Healthcare Insurance Cache server that is located at the FSC in Austin, Texas. This national datacenter receives the eligibility inquiry messages and issues a response by first checking its database for any fresh information that it may have on file, or if no current information is available it will forward the request to an electronic clearinghouse of insurance information. WebMD is currently contracted to handle the clearinghouse services. The clearinghouse, in turn, forwards the inquiry to the requested payer, ex. Aetna, Blue Cross/Blue Shield, etc. The payer issues a response message to confirm or deny coverage based on the information provided in the inquiry. The national cache database is updated with the results to potentially be used for future inquiries, and the response message is routed back to the VistA site and may be posted to the Insurance Buffer where authorized users can review and accept the returned information into the current insurance files through enhancements to the insurance buffer list option.



One challenge inherent in this process results from the fact that each VA site is able to maintain a separate list of insurance companies. In order for the various VistA locales to be able to effectively request eligibility information for the various payers, a national VA insurance payer list has been established to provide a standard identification system for all payers that are participating in this process. Enhancements have been added to allow each VA site the ability to link the insurance companies in their own site's list to the appropriate payer in the national payer list. This standardizes the identification of the payer to which each inquiry should be directed.

Additional features were also added to assist the users of the insurance buffer with IIV related tasks. A new feature named "Auto Match" has been added that allows the system to be "taught" rules for matching the user-entered insurance company names in the insurance buffer to existing entries in the site's insurance company file. Also, a new method has been added for accepting information from an insurance buffer entry into the patient's permanent insurance records that allows each data field change to be individually accepted or rejected. Another feature allows a user to select multiple buffer entries for the Process, Expand, and Reject entry actions, to ease the process of working with larger sets of buffer entries.

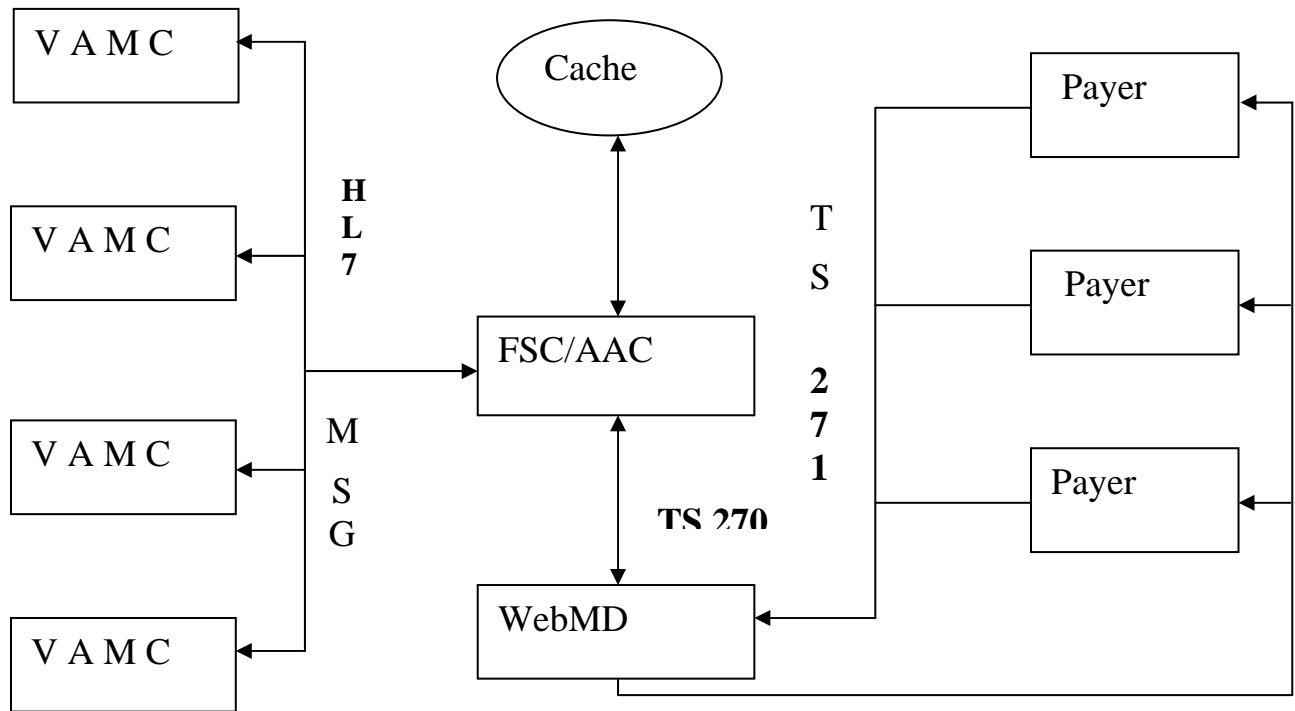
## ***IIV Process Flow***

Each VistA system, as they install the Insurance Identification and Verification patch software, are eligible to send and receive messages from the Eligibility Communicator (EC, AKA Vitria), the component of IIV located at the Austin Automation Center. VistA communication methodology is through a TCP/IP connection to the Vitria server in the form of an HL7 message. Vitria validates the HL7 message.

If the message fails EC's validation, the sending VistA facility receives an error message from EC. Otherwise EC processes the message and returns responses to most of them as defined in this IDD. Vitria first checks the record against the National Health Care Insurance Cache to see if an eligibility response already exists for the patient and payer combination. If current and "fresh" data exists, Vitria returns the data back to the sending VistA facility without pursuing further communication with WebMD. If the data does not exist or is not "fresh" enough for the VistA facility, Vitria transforms the HL7 message to a standard X12 270 message and sends it on to WebMD.

WebMD processes the 270 message on to the appropriate payer and receives a response. When WebMD receives a response from the payer, it is forwarded back to Vitria at Austin. If the response is a 997 error response, steps to determine the problem are taken to resolve the problem.

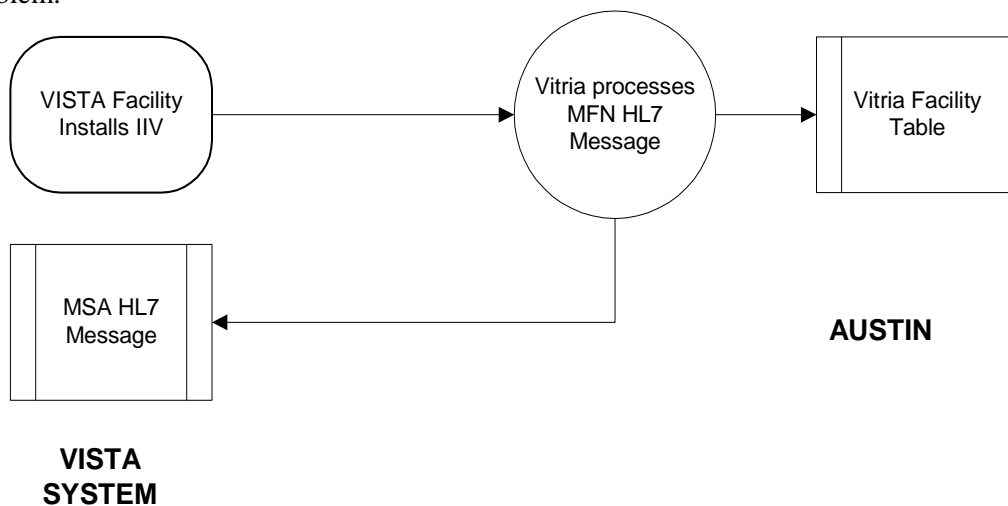
If a "success" response is received from the payer via WebMD in a 271 message, Vitria saves the data into the National Insurance Cache and transforms it to an HL7 message. The message is then sent back to the sending VistA facility for processing. The VistA facilities can tell Vitria when they install if they wish these return messages to be real-time (immediate) or held and batched for a later time determined by the VistA facility.



**Figure 2.** Diagram of the process-flow for electronic eligibility requests sent by the IIV process

### *VistA Registration Dialog*

When a site installs the IIV software and performs all of the post-installation instructions, a registration message will be sent to confirm the registration and update any site-specific information. This message is sent each night prior to the regular HL7 messages to ensure that any changes in information can be updated. The regular HL7 messages will not be sent if a positive acknowledgement is not received. A mail message will be sent to the MailGroup IBCNE IIV HL7 MESSAGES informing users of this problem.



# IMPLEMENTATION AND MAINTENANCE

## *General Notes Regarding Changes to this Software*

1. Integrated Billing files may only be updated through distributed options.
2. Per VHA Directive 10-93-142 regarding security of software that affects financial systems, most of the IB routines and files may not be modified. Routines that may not be modified will be indicated by a comment on the third line. Files that may not be modified will have a note in the file description.
3. According to the same directive, most of the IB Data Dictionaries may not be modified.

## *Platform Requirements*

### **VistA System:**

A fully patched and complete VistA system is required, running Integrated Billing (IB) Version 2.0. In particular, the pre-requisite patches listed below must be installed prior to the installation of the IIV patch IB\*2.0\*271.

In addition, the VistA system must have a properly installed and functioning HL7 module.

## *Pre-Requisite Patch Requirements*

VistA Package and Version	Associated Patch Designation(s)	Brief Patch Description
Integrated Billing Version 2.0	IB*2.0*184	This is the build for the electronic Insurance Identification and Verification project (also referred to as eIIV and IIV).
Integrated Billing Version 2.0	IB*2.0*252	This patch addresses the following NOIS message(s):  POR-0903-52494 BUFFER FILE PROBLEMS  BAY-1003-30706 Critical Message received from IIV  LOU-0903-42302 IIV Payer Link Report /column  UNY-1003-12260 <NULLSUBSCR>VALID+5^IBCNEUT4

Integrated Billing Version 2.0	IB*2.0*284	<p>This patch modifies the 'Sender' name used by the IIV STATISTICAL REPORT when mailing the report to the IBCNE IIV MESSAGE mail group.</p> <p>The name is changed from "IB IIV INTERFACE" to "IIV INTERFACE (IB)".</p>
Integrated Billing Version 2.0	IB*2.0*251	<p>The Healthcare Insurance Portability and Accountability Act National Council for Prescription Drug Programs (HIPAA NCPDP) initiative, whose ultimate goal is to provide functionality allowing electronic transmission of Outpatient Pharmacy (OP) prescription claims to payers and the receipt of claim responses (including drug utilization review responses and warnings) on a real-time basis, is being developed and introduced in a phased implementation strategy. ...</p>

## ***Hardware Requirements***

The IIV patch requires a standard implementation of VistA running on a hardware platform that is commonly supported by VistA.

Additionally, TCP/IP network connectivity needs to be available between the site's VistA server and the Eligibility Communicator (EC) server located at the FSC in Austin, TX. The EC server is connected to the VA's intranet, therefore connectivity should be available without additional action as long as the VistA server is also connected to the VA's intranet.

## ***New Globals***

Global ^IBCN should have been created prior to installation of IB\*2.0\*184. Please verify that such a global exists prior to installation of IB\*2.0\*271.

### **Data Files Stored in the Global ^IBCN:**

Note: The data files stored in ^IBCN were created as part of IB\*2.0\*184.

- IIV RESPONSE (#365)
- IIV TRANSMISSION QUEUE (#365.1)
- IIV AUTO MATCH (#365.11)

In addition, thirteen new Files are added into the pre-existing global ^IBE

### **Data Files Stored in the Global ^IBE:**

Note: The data files added into the global ^IBE were created as part of IB\*2.0\*184.

- X12 217 ELIGIBILITY/BENEFIT (#365.011)
- X12 217 COVERAGE LEVEL (#365.012)
- X12 217 SERVICE TYPE (#365.013)
- X12 217 INSURANCE TYPE (#365.014)
- X12 217 TIME PERIOD QUALIFIER (#365.015)
- X12 217 QUANTITY QUALIFIER (#365.016)
- X12 217 ERROR CONDITION (#365.017)
- X12 217 ERROR ACTION (#365.018)
- X12 217 CONTACT QUALIFIER (#365.021)
- PAYER (#365.12)
- PAYER APPLICATION (#365.13)
- IIV TRANSMISSION STATUS (#365.14)
- IIV STATUS TABLE (#365.15)

## ***Globals to Journal***

Journaling for the global **IBCN** is recommended. Journaling instructions from the IB Technical Manual should be followed.

## ***Estimated Global Growth***

Only two of the files related to IIV are expected to grow significantly over time. These files are the IIV TRANSMISSION QUEUE (#365.1) and IIV RESPONSE (#365) files. The growth rate of these files is directly proportional to the number of inquiries/responses that are generated each day. The volume of daily activity at each site can be controlled through the batch extract settings defined in the MCCR Site Parameters screen. As an example, if 5,000 records are generated for one day, the total growth for that day may be up to 20 MB.

^IBCN(365) - .003 Mb per entry (IIV Response File #365)

^IBCN(365.1) - .001Mb per entry (IIV Transmission Queue #365.1)

Note that functionality has been included that allows data in these files to be purged if it is at least six months old.

## ***HL7 Management***

IIV makes heavy use of HL7 messaging. Ensure that the HL7 globals have sufficient room for growth. Reference HL\*1.6\*19 patch documentation for further instructions. Also, reference the External Interfaces – HL7 Communications Setup section, in this manual, for specific IIV HL7 information.

This interface is dependant upon both an IP address and the node on which HL7 listens. If any of the following scenarios occur, you may need to adjust the settings for one of the IIV logical links. Without this adjustment, the interface will stop transmitting insurance inquiries and receiving eligibility responses. In other words, the interface will stop working.

- The VAMC changes which node is the start-up node.
- The VAMC changes the node on which HL7 is listening.

If either of the above scenarios occurs, reference Appendix C for specific instructions related to adjusting the IIV logical links.

## ***Bulletins***

Currently there are no bulletins set up for the electronic Insurance Identification and Verification Interface Version 1.0 software.

# TECHNICAL NOTES

## *Namespace*

The Insurance Identification and Verification Interface has been assigned the namespace IBCNE. Approval was obtained in order to modify some routines in the IBJPI namespace. The IBCNE namespace is used for all new routines, options etc. associated with this interface. Routines directly associated with IB IIV Site Parameters uses the IBJPI namespace.

## *File Number Space*

The IIV package file range is 365-365.99.

## *New Routines*

These are new routines added for the electronic Insurance Identification and Verification Interface Version 1.0 software.

Per VHA Directive 10-93-142 regarding security of software that affects financial systems, most of the IB routines may not be modified. This restriction will be noted on the third line of the routines.

<b>Routine Name</b>	<b>Description</b>
IBCNBAC	This program contains subroutines for the individual acceptance of buffer entry information.
IBCNBLA2	This program contains subroutines for processing and validating the selection of multiple entries from the INSURANCE BUFFER File (#355.33).
IBCNEAMI	This program performs an input transform for the Auto Match functionality.
IBCNEDE7	This program was added to include subroutines originally in routine IBCNEDE when IBCNEDE had expanded beyond the routine size limitation in VistA.
IBCNEHLK	This program processes the Registration MFN Acknowledgement message.
IBCNEHLM	This program will create the outgoing Registration MFN message.
IBCNEHLO	This program takes “ready to transmit” records and sets variables needed to create the HL7 message.
IBCNEHLU	This program contains some specialized HL7 utility functions.
IBCNEKI2	This program is a continuation of the IIV purge logic in IBCNEKIT, including the monthly MailMan notification when there are IIV records that are eligible for purge.
IBCNEPM	This program executes the Payer Maintenance option.
IBCNEPM1	This program is a continuation of the Payer Maintenance option.
IBCNEPM2	This program is a continuation of the Payer Maintenance option.
IBCNEPST	This is the KIDS post-installation program for IB*2.0*184.
IBCNEPY	This program modifies entries in the PAYER File (#365.12).

IBCNERP7	This program is part of the IIV Statistical Report.
IBCNERPE	This program was added to include subroutines originally in routines IBCNERP2 and IBCNERP3 when these routines had expanded beyond the routine size limitation in VistA.
IBCNEUT1	This program contains general IIV utilities.
IBCNEUT2	This program contains general IIV utilities.
IBCNEUT7	This program contains general IIV utilities.
IBCNEUT8	This program contains general IIV utilities.
IBJPI3	This program is used to allow modifications to the IIV Most Popular Payer list.
IBJPI4	This program performs the IIV Most Popular Payer list actions
IBY271PR	This is the KIDS pre-installation program for IB*2.0*271
IBY271PS	This is the KIDS post-installation program for IB*2.0*271

### ***Modified Routines***

These are current Integrated Billing programs that were modified for the electronic Insurance Identification and Verification Interface Version 1.0 software.

<b>Routine Name</b>	<b>Description</b>	<b>Summary of Changes</b>
IBCNBAA	This program sets up the Insurance Buffer to process Accepts.	Logic was added to this routine to accommodate the new methods for accepting individual data fields in the insurance buffer into the patient's insurance file. Subsequently a problem with the Individually Accept option was corrected when information was not initialized.
IBCNBEE	This program edits existing entries in the Insurance Buffer.	When entering or editing an entry in the Insurance Buffer, previously the insurance company name was purely free-text. Changes were added to provide lookups into existing insurance company names, as well as, matching through the Auto-Match feature to provide more consistent data entry for this field. Subsequently the functionality was changed to permit the caret “^” to quit the lister (of the insurance company lookup), but allow the user to proceed to the next prompt rather than quitting the editing session for that section.
IBCNBES	This program files new entries/data into the Insurance Buffer.	Logic was added to accommodate the new SOURCE OF INFORMATION (#355.33,.03) of 'eIIV'
IBCNBLA	This program executes ListMan actions for the Insurance Buffer ListMan.	Changes were added to allow the selection and processing of multiple



		Insurance Buffer entries and to allow the user to sort the entries in the Insurance Buffer list by the IIV Status. Handling of the new action to check insurance company names from the Insurance Buffer list was also added to this routine. Incorporated the new # IIV Status to identify an undetermined response.
IBCNBLA1	This program executes ListMan actions for the Insurance Buffer ListMan.	Changes allow Auto-Match usage when adding a new insurance buffer entry, handling of IIV Status for manually verified entries, and also the code to handle the action for displaying the response report directly from the Insurance Buffer entry. Subsequently the functionality was changed to permit the caret “^” to quit the lister (of the insurance company lookup), but allow the user to proceed to the next prompt rather than quitting the editing session for that section. In addition a modification to prevent the creation of an Insurance Buffer entry with a blank Insurance Company Name was implemented. Corrected the IIV Response Report action within the Buffer’s Expand Entry to select the latest response rather than the first response associated with the buffer entry. In addition, initialized the screen to full screen mode for this action.
IBCNBLE	This program is the Insurance Buffer entry screen.	IIV specific information was added to the end of the Insurance Buffer entry information display.
IBCNBLE1	This program performs the Expand Entry action in the Insurance Buffer ListMan screen. Code to call utilities to reevaluate the IIV Status and display revised values is included, as well.	Converted error code/description display in Insurance Buffer Expand Entry to prevent user confusion from ‘Code: Description’ to ‘Description (Error Code ‘Code’)’. Display CORRECTIVE ACTION (#365.15,2) associated with IIV Status Table entries.
IBCNBLL	This program generates the Insurance Buffer entries for the initial ListMan screen.	This routine was enhanced to include the user interface options for sorting the Insurance Buffer list screen by the IIV Status. Incorporated the new ‘#’ IIV Status to identify an undetermined response. Updated help text within the

		insurance buffer menu to be more consistent with the descriptions of the IIV Status symbols given on the IIV Statistical Report.
IBCNBME	This program is used to add or edit an Insurance Buffer entry for other packages.	The changes to this routine handle the new SOURCE OF INFORMATION (#355.33,03) and the IIV STATUS (#355.33,.12) field population for the Insurance Buffer entries created through other packages.
IBCNBMI	This program moves data from the Insurance Buffer to the Insurance files.	This routine was modified to accommodate the filing of the appropriate information when the Individually Accept method of accepting Insurance Buffer data is chosen. Also, this routing handles the acceptance of address information as a group. Subsequently, a problem with the Individually Accept option was corrected when information was not initialized.
IBCNBU1	This program contains Insurance Buffer utilities.	Help text changes for the Individually Accept method of accepting an Insurance Buffer entry where added to this routine.
IBCNBUH	This program contains Insurance Buffer Help text.	Help text changes for the Individually Accept method of accepting an Insurance Buffer entry where added to this routine.
IBCNEAMC	This program produces the list of auto matched entries for the INSURANCE BUFFER File (#355.33).	Changed the word “link” to “associate” in order to add clarity.
IBCNEAME	This program allows users to enter or edit Auto matched entries.	Changed the word “link” to “associate” in order to add clarity.
IBCNEBF	This program will create a Buffer entry based upon input values.	Text of MailMan message was improved.
IBCNEDE	This program is the main driver for all data extracts associated with the Insurance Identification and Verification interface. This program will run each extract in the specified order, which populates the IIV Transmission File (sometimes it creates/updates an entry in the insurance buffer as well). It then begins to process the inquiries in the IIV TRANSMISSION FILE (#365.1).	Send MailMan message on the first of the month to remind users to purge the IIV Transmission Queue and Response files. Text of MailMan message was improved. Added lock to prevent users from running multiple concurrent IIV Nightly Processes.
IBCNEDE1	This program loops through the insurance buffer and creates IIV transaction queue entries when appropriate. Periodically checks for stop request for background	Referenced IBCNEDE7 due to routine split of IBCNEDE. Added check to filter out any test patients that may exist on the production system. We

	task.	are using the same check that ^DPTLK is using to determine if a patient is a test patient. If the PATIENT file, field TEST PATIENT INDICATOR (#2,,6) is set to true then the patient is considered to be a test patient.
IBCNEDE2	This program finds veterans who are scheduled to be seen within a specified date range. Periodically checks for stop request for background task.	References the new utility in IBCNEUT5 to determine if an identification inquiry should be generated. This code was modified to have the inactive flag and the most popular flag work in conjunction rather than stand alone. Referenced IBCNEDE7 due to routine split of IBCNEDE. Added check to filter out any test patients that may exist on the production system. We are using the same check that ^DPTLK is using to determine if a patient is a test patient. If the PATIENT file, field TEST PATIENT INDICATOR (#2,,6) is set to true then the patient is considered to be a test patient.
IBCNEDE3	This program finds veterans who have been seen within a specified date range that have active insurance records that have not been verified recently. Periodically checks for stop request for background task.	Referenced IBCNEDE7 due to routine split of IBCNEDE. Added check to filter out any test patients that may exist on the production system. We are using the same check that ^DPTLK is using to determine if a patient is a test patient. If the PATIENT file, field TEST PATIENT INDICATOR (#2,,6) is set to true then the patient is considered to be a test patient.
IBCNEDE4	This program finds veterans who have been seen within a specified date range but who have no active or no insurance records. Periodically checks for stop request for background task.	Changed Most Popular Insurance Company to Most Popular Payer. References the new utility in IBCNEUT5 to determine if an identification inquiry should be generated. Subroutine removed from here and added to IBCNEDE4 due to routine size limitation. This code was modified to have the inactive flag and the most popular flag work in conjunction rather than stand alone. Referenced IBCNEDE7 due to routine split of IBCNEDE. Added check to filter out any test patients that may exist on the production system. We

		are using the same check that ^DPTLK is using to determine if a patient is a test patient. If the PATIENT file, field TEST PATIENT INDICATOR (#2,,6) is set to true then the patient is considered to be a test patient.
IBCNEDE5	This program contains function calls used for the data extracts.	Added DFN as parameter passed to \$\$GETSSN.
IBCNEDE6	This program contains function calls used for the data extracts.	Subroutine from IBCNEDE4 added here due to routine size limitation. Referenced IBCNEDE7 due to routine split of IBCNEDE.
IBCNEDEP	This program finds records needing HL7 message creation and creates records in the Transmission Queue and Response Files.	When retries are generated and a response is received for one of the inquiries (retry or original) changed the code to update the status of the remaining inquiries to communication failure (assuming that the current status is not response received).
IBCNEDEQ	This program contains some subroutines for processing a transmission.	Included the last four digits of the patient's social security as well as the patient's date of birth in MailMan messages generated due to communication timeouts and failures. Text of MailMan messages was improved.
IBCNEHLD	This program will process deactivate registration MFN message. This should only be executed by instruction – to be used to turn off a site from electronic Insurance Identification and Verification interface.	Text of MailMan message was improved.
IBCNEHLI	This program parses each incoming HL7 message and passes the message on to the processing program.	As a result of an SQA review, new variables that had not been newed. Text of MailMan message was improved.
IBCNEHLP	This program will process the individual segments of the incoming IIV HL7 response messages.	A problem was corrected to use the ICN rather than the DFN (which is different at each site) to identify a patient as a result of a true "cache hit". Text of MailMan messages was improved.
IBCNEHLQ	This routine builds the HL7 segments for an IIV Verification (RQI^I01) or Identification (RQI^I03) request.	Stripped dashes from social security number fields in PID and GT1 segments.
IBCNEHLR	This program will process incoming IIV response messages. This includes updating the record in the IIV	A message originally identified as critical was changed to important so as not to unnecessarily alarm the users.

	RESPONSE FILE (#365), updating the Buffer record (if there is one and creating a new one if there isn't) with the appropriate IIV STATUS (#355.33,.12) and data.	Incorporated changes to response processing. Changed code to prevent negative responses to an identification and ambiguous responses to an identification from filing in the buffer.
IBCNEHLS	This is a continuation of IBCNEHLR which processes an incoming HL7 RPI IIV message.	Modified routine to utilize the EC supplied Eligibility Determination flag to identify the IIV status and process the response appropriately.
IBCNEHLT	This program will process incoming HL7 MFN messages and update the appropriate tables	Text of MailMan message was improved.
IBCNEKIT	This program handles the purging of the IIV data stored in the IIV TRANSMISSION QUEUE File (#365.1) and in the IIV RESPONSE File (#365). User can pick a date range for the purge. Data created within 6 months cannot be purged. The actual global kills are done by a background task after hours.	Remind the user that journaling for global ^IBCN should be disabled prior to running the purge option.
IBCNEQU	This program performs the Request Electronic Insurance Inquiry functionality.	Referenced IBCNEDE7 due to routine split of IBCNEDE. Added check to filter out any test patients that may exist on the production system. We are using the same check that ^DPTLK is using to determine if a patient is a test patient. If the PATIENT file, field TEST PATIENT INDICATOR (#2,.6) is set to true then the patient is considered to be a test patient.
IBCNERP0	This program is part of the IIV Statistical Report.	Adjusted formatting as a result of the incorporation of the new '#' IIV Status.
IBCNERP1	This program is part of the IIV Response Report.	Modified the selection criteria for IIV Response Report to allow the user to select a specific payer and/or patient or all patients and/or payers. Incorporated Inactive Policy Report [IBCNE IIV INACTIVE POLICY RPT] and Ambiguous Policy Report [IBCNE IIV AMBIGUOUS POLICY RPT].
IBCNERP2	This program is part of the IIV Response Report compile.	Modified the selection criteria for IIV Response Report to allow the user to select a specific payer and/or patient or all patients and/or payers. Incorporated changes to response processing in this report. Incorporated Inactive Policy Report [IBCNE IIV

		INACTIVE POLICY RPT] and Ambiguous Policy Report [IBCNE IIV AMBIGUOUS POLICY RPT].
IBCNERP3	This program is part of the IIV Response Report print.	Modified the selection criteria for IIV Response Report to allow the user to select a specific payer and/or patient or all patients and/or payers. In addition, updated the error information displayed on the report to display the entire description rather than truncating and limiting it to one line, and allowed the description to wrap, if necessary. Included the patient's date of birth and the last four digits of the social security number in the header of this report. Incorporated Inactive Policy Report [IBCNE IIV INACTIVE POLICY RPT] and Ambiguous Policy Report [IBCNE IIV AMBIGUOUS POLICY RPT].
IBCNERP4	This program is part of the IIV Payer Report.	Modified the selection criteria for IIV Payer Report to allow the user to select a specific payer and/or patient or all patients and/or payers.
IBCNERP5	This program is part of the IIV Payer Report compile.	Modified the selection criteria for IIV Payer Report to allow the user to select a specific payer and/or patient or all patients and/or payers.
IBCNERP6	This program is part of the IIV Payer Report print.	Modified the selection criteria for IIV Payer Report to allow the user to select a specific payer and/or patient or all patients and/or payers.
IBCNERP8	This program is part of the IIV Statistical Report compile.	Incorporated the new '#' IIV Status to identify an undetermined response.
IBCNERP9	This program is part of the IIV Statistical Report print.	Incorporated the new '#' IIV Status to identify an undetermined response. To make the display of information more user friendly and intuitive, changed the breakdown for buffer entries from "Verified Entries" and "Non-Verified Entries" to "User Action Required" and "Entries Awaiting Processing".
IBCNERPA	This program is part of the IIV Response Report.	Modified the selection criteria for IIV Response Report to allow the user to select a specific payer and/or patient or all patients and/or payers. In addition updated the Eligibility/Benefit information displayed on the report to sort by Service Type, Insurance Type,

		Coverage Level and Eligibility/Benefit Information for a more readable format. In addition, updated the Eligibility/Benefit information displayed on the report to sort by In Plan Network, Service Type, Insurance Type, Coverage Level and Eligibility/Benefit Information for a more readable format. Incorporated changes to response processing in this report. Incorporated Inactive Policy Report [IBCNE IIV INACTIVE POLICY RPT] and Ambiguous Policy Report [IBCNE IIV AMBIGUOUS POLICY RPT].
IBCNERPB	This program is part of the IIV Payer Link Report.	Added warning to alert user that this report is 132 characters wide. Restricted payers to IIV payers.
IBCNERPC	This program is part of the IIV Payer Link Report.	Allowed the insurance company search key word to be case insensitive. Corrected a problem in the Payer Link Report where certain Insurance Companies were not displayed. This occurred when the associated IENs were not strictly numeric. Restricted payers to IIV payers.
IBCNERPD	This program is part of the IIV Payer Link Report.	Reformatted to a 132 character report.
IBCNEUT3	This program contains general IIV utilities.	Corrected problem identified by NOIS UNY-1003-12260 where a Null Subscript error was returned at VALID+4^IBCNEUT4 when performing the Expand Entry action in the Insurance Buffer for select entries. Updated text related to IIV Status to align with changes made to the IIV Status Table.
IBCNEUT4	This program contains general IIV utilities.	Changed Most Popular Insurance Company to Most Popular Payer and supported manual entry of these payers. Updated text related to IIV Status to align with changes made to the IIV Status Table.
IBCNEUT5	This program contains general IIV utilities.	A utility has been added to reduce the number of times a patient with no active insurance, no inactive insurance, and no available most popular payers to check is added to the transmission queue. Specifically, if

		the patient has been on the transmission queue for any payer within the freshness period an inquiry will not be generated.
IBCNEUT6	This program contains general IIV utilities.	Changed the word “link” to “associate” in order to add clarity. Changed Most Popular Insurance Company to Most Popular Payer and supported manual entry of these payers.
IBJPI	This program is used to define the IIV Site Parameters.	Changed Most Popular Insurance Company to Most Popular Payer and supported manual entry of these payers. Removed confusing Site Parameters. Display MOST POPULAR LAST SAVED BY (#350.9,51.24) on Site Parameters [MCCR SITE PARAMETERS ENTER/ED] screen.
IBJPI2	This program performs the IIV Site Parameters actions.	Changed Most Popular Insurance Company to Most Popular Payer, supported manual entry of these payers and added lock to prevent multiple Most Popular sessions. Removed confusing Site Parameters.
IBCNSC	This program edits an Insurance Company.	A new section was added to the display of insurance company information that is called when viewing or editing insurance company data. This new section displays information about the Payer from the PAYER File (#365.12).
IBCNSC01	This program edits an Insurance Company.	Code was added to this routine to handle the formatting of the new Payer section on the insurance information display.
IBCNSMM	This program deals with Medicare Insurance intake.	Minor changes were made to this routine to allow for the proper handling of the new ‘eIIV’ SOURCE OF INFORMATION (#355.33,.03).
IBJPM	This program displays and allows editing of the MCCR Site Parameters.	This routine was modified to display the new IIV parameter setting option on the site parameters [MCCR SITE PARAMETERS ENTER/ED] screen. Most Popular Insurance was renamed to Most Popular Payers.

### ***File List with Descriptions***



**WARNING:** *It is not recommended that you use VA FileManager to edit any of the files directly! Furthermore, editing any of the new files without direction from the interface programmers may cause the interface to become non-functional!*

File #	File Name	Data Dictionary
36	INSURANCE COMPANY (modified existing file)	^DIC(36)- This file contains the names and addresses of insurance companies as needed by the local facility. The data in this file is NOT EDITABLE USING VA FILEMAN. If a new entry needs to be made or an existing entry changed, the user must be assigned the appropriate MAS or IB module option.
350.9	IB SITE PARAMETERS (modified existing file)	^IBE(350.9) – This file contains the data necessary to run the IB package. It has been modified to store the parameters needed for the Insurance Identification and Verification Interface. All data elements for the Insurance Identification and Verification Interface will be numbered 51.nn.
355.33	INSURANCE BUFFER (modified existing file)	^IBA(355.33) – This file contains insurance information accumulated by various sources. The data is held in this file until an authorized person processes the information by either rejecting it or moving it to the Insurance files.
365	IIV RESPONSE	^IBCN(365) – This file holds all responses to HL7 messages generated from the IIV TRANSMISSION QUEUE File (#365.1) for Insurance Identification and Verification.
365.011	X12 271 ELIGIBILITY/BENEFIT	^IBE(365.011) – This contains the eligibility statuses of the individual or the benefit related categories from the corresponding X.12 271 EB01 codes.
365.012	X12 271 COVERAGE LEVEL	^IBE(365.012) – This contains the level of coverage of benefits from the corresponding X.12 271 EB02 codes.
365.013	X12 271 SERVICE TYPE	^IBE(365.013) – This contains the classification of services from the corresponding X.12 271 EB03 codes.
365.014	X12 271 INSURANCE TYPE	^IBE(365.014) – This contains different types of insurance policies from the corresponding X.12 271 EB04 codes.
365.015	X12 271 TIME PERIOD QUALIFIER	^IBE(365.015) – This contains the time period category when qualifying benefit availability from the corresponding X.12 271 EB05 codes.

File #	File Name	Data Dictionary
365.016	X12 271 QUANTITY QUALIFIER	^IBE(365.016) – This contains the type of units that are conveyed when describing a benefit quantity from the corresponding X.12 271 EB06 codes.
365.017	X12 271 ERROR CONDITION	^IBE(365.017) – This file contains all the corresponding X.12 271 AAA03 codes. These values are returned because of an error in processing.
365.018	X12 271 ERROR ACTION	^IBE(365.018) – This file contains the action that eIIV should take as a result of an error encountered.
365.021	X12 271 CONTACT QUALIFIER	^IBE(365.021) – This contains the different types of communications.
365.1	IIV TRANSMISSION QUEUE	^IBCN(365.1) – This file contains records, which have been selected based on specific criteria to generate an HL7 message. These messages will be sent to the Eligibility Communicator for processing.
365.11	IIV AUTO MATCH	^IBCN(365.11) – This file contains records, which have been entered by the users to assist with the identification of a valid insurance company names that are found in the INSURANCE COMPANY File (#36).
365.12	PAYER	^IBE(365.12) – This file contains all payers, which can be communicated with electronically for insurance identification and verification.  At this time, WebMD is the only vendor Vista is communicating with electronically and so this file will contain those payers with whom WebMD currently electronically communicates with.
365.13	PAYER APPLICATION	^IBE(365.13) – This file contains all the different applications that a payer could be contacted electronically for.
365.14	IIV TRANSMISSION STATUS	^IBE(365.14) – This file contains all the possible message statuses that are found in the IIV TRANSMISSION QUEUE File (#365.1) and the IIV RESPONSE File (#365).
365.15	IIV STATUS TABLE	^IBE(365.15) – This file contains the possible IIV Status symbols, and in some cases the applicable error message, that is found in the Insurance Buffer entries.

## ***Modified Files – Detailed***

### **IB Site Parameters**

The following fields have been added to the IB SITE PARAMETER File (#350.9):

Field Number	Field Name
51.01	FRESHNESS DAYS
51.02	DAILY MAILMAN MSG
51.03	DAILY MSG TIME
51.04	MESSAGES MAILGROUP
51.05	TIMEOUT DAYS
51.06	NUMBER RETRIES
51.07	TIMEOUT MAILMAN MSG
51.08	INQUIRE INACTIVE INSURANCE
51.09	INQUIRE POPULAR PAYERS
51.1	NO. POPULAR PAYERS
51.11	POPULAR INSUR CO. FROM DATE – Obsolete as of 12/15/2003
51.12	POPULAR INSUR CO. THRU DATE – Obsolete as of 12/15/2003
51.13	HL7 RESPONSE PROCESSING
51.14	HL7 START TIME
51.15	HL7 MAXIMUM NUMBER
51.16	CONTACT PERSON
51.17	BATCH EXTRACTS (multiple file #350.9002)
	.01 BATCH EXTRACTS
	.02 ACTIVE?
	.03 SELECTION CRITERIA #1
	.04 SELECTION CRITERIA #2
	.05 MAXIMUM EXTRACT NUMBER
	.06 SUPPRESS BUFFER CREATION
51.18	POPULAR PAYERS (multiple file #350.9003)
	.01 POPULAR PAYER
51.19	HL7 STOP TIME
51.2	FAILURE MAILMAN MSG
51.21	MOST POPULAR LAST SAVE DATE
51.22	REGISTRATION COMPLETE
51.23	INQUIRE SECONDARY INSURANCE
51.24	MOST POPULAR LAST SAVED BY

### Corrective Action Sub-file

The following field has been added to the CORRECTIVE ACTION in the IIV STATUS TABLE File (#365.15):

Field Number	Field Name
.01	CORRECTIVE ACTION

### Insurance Buffer

The following fields in the INSURANCE BUFFER File (#355.33) have been added or modified:

Field Number	Field Name	Summary of Changes
.03	SOURCE OF INFORMATION	Modified: Added new source; 5:eIIV
.12	IIV STATUS	New
.13	OVERRIDE FRESHNESS FLAG	New
.15	IIV PROCESSED DATE	New
20.01	INSURANCE COMPANY NAME	Modified: Updated the input template

### Insurance Company

The following fields in the INSURANCE COMPANY File (#36) have been added or modified:

Field Number	Field Name	Summary of Changes
3.1	PAYER	New
0.128	ANOTHER CO. PROCESS IP CLAIMS?	Modified: Changed the field name
0.168	ANOTHER CO. PROCESS OP CLAIMS?	Modified: Changed the field name

### Insurance Type Sub-file

The following field has been modified in the INSURANCE TYPE in the PATIENT File (#2):

Field Number	Field Name	Summary of Changes
1.09	SOURCE OF INFORMATION	Modified: Added new source; 5:eIIV

### Eligibility/Benefit Sub-file

The following field has been modified in the ELIGIBILITY/BENEFIT in the IIV RESPONSE File (#365):

Field Number	Field Name	Summary of Changes
.08	MONETARY AMOUNT	Modified: Expanded the allowable range of values for the Monetary Amount field to accommodate a value of up to \$999,999,999.00.

### ***File Protection***

The Insurance Identification and Verification Interface contains files that are standardized. They carry a higher level of file protection with regard to Delete, Read, Write, and LAYGO access and should not be edited locally unless otherwise directed. The data dictionaries for all files should NOT be altered.

The following is a list of recommended VA FileMan access codes associated with each *\*new\** file contained in the KIDS build for the IIV interface.

File #	File Name	DD	RD	WR	DEL	LAYGO	AUDIT
365	IIV RESPONSE	@					
365.011	X12 271 ELIGIBILITY/BENEFIT	@			@	@	
365.012	X12 271 COVERAGE LEVEL	@			@	@	
365.013	X12 271 SERVICE TYPE	@			@	@	
365.014	X12 271 INSURANCE TYPE	@			@	@	
365.015	X12 271 TIME PERIOD QUALIFIER	@			@	@	
365.016	X12 271 QUANTITY QUALIFIER	@			@	@	
365.017	X12 271 ERROR CONDITION	@			@	@	
365.018	X12 271 ERROR ACTION	@			@	@	
365.021	X12 271 CONTACT QUALIFIER	@			@	@	
365.1	IIV TRANSMISSION QUEUE	@					

<b>File #</b>	<b>File Name</b>	<b>DD</b>	<b>RD</b>	<b>WR</b>	<b>DEL</b>	<b>LAYGO</b>	<b>AUDIT</b>
365.11	IIV AUTO MATCH	@					
365.12	PAYER	@					
365.13	PAYER APPLICATION	@					
365.14	IIV TRANSMISSION STATUS	@			@	@	
365.15	IIV STATUS TABLE	@			@	@	

### ***Input Templates***

Following is a list of the VA FileMan input templates exported.

<b>Input Template</b>	<b>File</b>	<b>Modified/New</b>
IBEDIT INS CO1	INSURANCE COMPANY #36	Modified
IBCNE GENERAL PARAMETER EDIT	IB SITE PARAMETERS #350.9	Modified

## *List Templates*

Following is a list of the VA FileMan list templates exported.

List Template	Modified/New
IBCNB INSURANCE BUFFER ENTRY	Modified
IBCNE AUTO MATCH BUFFER LIST	New
IBCNE PAYER EXPAND LIST	New
IBCNE PAYER MAINT LIST	New
IBCNE REQUEST INS INQUIRY LIST	New
IBJP IIV SITE PARAMETERS	New
IBJP IIV MOST POPULAR PAYERS	New

## *New Mail Group*

Mail Group Name	Description
IBCNE IIV MESSAGE	This Mail Group receives message when IIV encounters a problem, which includes but is not limited to: building inquiries, processing responses, and other issues with the HL7 messages.

## *New Options for IIV*

The following options are new options installed as part of this patch.

<b>New IIV (VistA) options</b>	<b>Description</b>	<b>Attached to Menu</b>
Enter/Edit Auto Match Entries [IBCNE AUTO MATCH ENTER/EDIT]	This option is used to define and/or edit IIV Auto Match rules which assist the IIV software with matching free-text insurance company names in the Insurance Buffer with insurance companies in the INSURANCE COMPANY File (#36).	IIV Menu [IBCNE IIV MENU]
Add Auto Match Entries Using Insurance Buffer Data [IBCNE AUTO MATCH BUFFER]	This option is a tool that lists each of the free-text insurance company names in the Insurance Buffer to determine whether a match is able to be made to an existing insurance company in the INSURANCE COMPANY File (#36).	IIV Menu [IBCNE IIV MENU]
IIV Nightly Process [IBCNE IIV BATCH PROCESS]	This option is used to begin the nightly batch processing. The nightly processing checks to ensure that all required parameters are defined, runs the inquiry extracts, send a registration message to the EC, and then proceeds to deliver the inquiries. This option is typically run on a nightly basis through a scheduled TaskMan task.	(TaskMan ONLY)
Payer Maintenance Menu [IBCNE PAYER MAINTENANCE MENU]	This menu lists options to maintain the PAYER File (#365.12).	Patient Insurance Menu [IBCN INSURANCE MGMT MENU]
IIV Statistical Report [IBCNE IIV STATISTICAL REPORT]	This option runs the IIV Statistical Report which contains a summary of incoming and outgoing message traffic, as well as current statistics for the Insurance Buffer.	IIV Menu [IBCNE IIV MENU]



New IIV (VistA) options	Description	Attached to Menu
IIV Payer Link Report [IBCNE IIV PAYER LINK REPORT]	This option runs the IIV Payer Link Report which provides either a Payer List or an Insurance Company List. The Payer List reflects the payer / insurance company link information while the Insurance Company List reflects the insurance company / payer link information.	IIV Menu [IBCNE IIV MENU]
IIV Payer Report [IBCNE IIV PAYER REPORT]	This option runs the IIV Payer Report which provides statistics on a payer-by-payer basis regarding the number of inquiries sent and received and summaries of error codes that have been returned.	IIV Menu [IBCNE IIV MENU]
Payer Edit [IBCNE PAYER EDIT]  <b>*Requires the security key IBCNE IIV SUPERVISOR</b>	This option is used to review the list payers that are currently available for EDI communications in the national payer list maintained by the EC. This option can be used to locally enable or disable each payer for the site.	Payer Maintenance Menu [IBCNE PAYER MAINTENANCE MENU]
Purge IIV Transactions [IBCNE PURGE IIV DATA]	This option allows the site to purge IIV inquiry and response data from the IIV TRANSMISSION QUEUE (#365.1) and IIV RESPONSE (#365) files, respectively.	Purge Menu [IB PURGE MENU]
Request Electronic Insurance Inquiry [IBCNE REQUEST INQUIRY]  <b>*Requires the security key IBCNE IIV SUPERVISOR</b>	This option provides the means to manually request an electronic eligibility inquiry for a specified patient and insurance company. This option also allows an identification request to be sent for a specified patient that directs the EC to send all known insurance for that patient.	IIV Menu [IBCNE IIV MENU]

New IIV (VistA) options	Description	Attached to Menu
Link Insurance Companies to Payers [IBCNE PAYER LINK]  <b>*Requires the security key IBCNE IIV SUPERVISOR</b>	This option is a tool that assists insurance supervisor staff with matching the individual insurance companies in the INSURANCE COMPANY File (#36) to payers in the PAYER File (#365.12) by utilizing the professional and institutional EDI identifier to propose potential matches.	Payer Maintenance Menu [IBCNE PAYER MAINTENANCE MENU]
IIV Ambiguous Policy Report [IBCNE IIV AMBIGUOUS POLICY RPT]	This option displays details of ambiguous responses that were received as a result of identification inquiries. These responses are not stored in the buffer. Therefore, this report was added as a mechanism for reviewing this information.	Potential New Insurance Found [IBCNE POTENTIAL NEW INS FOUND]
IIV Inactive Policy Report [IBCNE IIV INACTIVE POLICY RPT]	This option display details of no active insurance responses were received as a result of identification inquiries. These responses are not stored in the buffer. Therefore, this report was added as a mechanism for reviewing this information.	Potential New Insurance Found [IBCNE POTENTIAL NEW INS FOUND]
Potential New Insurance Found [IBCNE POTENTIAL NEW INS FOUND]	This menu contains the IIV Ambiguous Policy and IIV Inactive Policy reports.	IIV MENU [IBCNE IIV MENU]

### ***Modified VistA Options Included in Transport Global***

The following options are existing VistA options that have been modified for the IIV project and are included in the Transport Global:

<b>The following VistA option</b>	<b>Description</b>
IB PURGE MENU	Existing VistA menu that is included in IIV Transport Global for merging new options.
IBCN INSURANCE MGMT MENU	Existing VistA menu that is included in IIV Transport Global for merging new options.
IBCNE IIV MENU	This menu contains options for IIV.
IBCNE IIV RESPONSE REPORT	This option runs the IIV Response Report, which displays details about incoming electronic responses from the EC/payers.

### ***Modified VistA Options Not Included in Transport Global***

The following options were affected by code changes, but have not been included in the Transport Global for the IIV software:

<b>Modified Option Name</b>	<b>Description</b>	<b>Attached to Menu</b>
Insurance Company Entry/Edit [IBCN INSURANCE CO EDIT]	This option allows the user to enter and update insurance company information that is stored in the INSURANCE COMPANY File (#36). This option was modified to allow the selection of a payer to which all electronic eligibility requests should be directed for that particular insurance company.	Patient Insurance Menu [IBCN INSURANCE MGMT MENU]
View Insurance Company [IBCN VIEW INSURANCE CO]	This option allows users to select and view insurance company information. A new section was added to this display that indicates the payer that has been linked with that insurance company and additional information about the current status of the payer.	Patient Insurance Menu [IBCN INSURANCE MGMT MENU], View Insurance Management Menu [IBCN VIEW INSURANCE DATA]
Insurance Company Entry/Edit [DG INSURANCE COMPANY EDIT]	This is another option that allows the user to enter and update insurance company information that is stored in the INSURANCE COMPANY File (#36). This option was modified to allow the selection of a payer to which all electronic eligibility requests should be directed for that particular insurance company.	Supervisor ADT Menu, MRT Utility Options, Reimbursement Utility Options, MCCR System Definition Menu, Patient Data Options

### ***List of New Security Keys***

There are two new security keys installed with the IIV interface. In addition, existing security keys are also being used.

<b>Security Key Name</b>	<b>Description</b>
IBCNE IIV SUPERVISOR <i>(new as of IB*2.0*184)</i>	This security key is for the Insurance Identification and Verification project (eIIV). It will be used to restrict access to certain eIIV options and applications. Only users holding this key will be allowed to access these eIIV options and applications.
IBCNE IIV AUTO MATCH <i>(new as of IB*2.0*184)</i>	This security key is for the Insurance Identification and Verification project (eIIV). It will be used to restrict access for certain actions associated with the Auto Match File. Only users holding this key will be allowed to add, delete, or modify entries in the Auto Match File.

### ***Options Locked by Security Keys***

<b>Options/Programs locked by a Security Key</b>	<b>Security Key</b>
Request Electronic Insurance Inquiry option	IBCNE IIV SUPERVISOR <i>*new*</i>
Payer Edit option	IBCNE IIV SUPERVISOR <i>*new*</i>
Link Insurance Companies to Payers option	IBCNE IIV SUPERVISOR <i>*new*</i>
The Auto Match routines programmatically check for the existence of this security key before allowing a user to add, delete, or update an entry in the Auto Match File. Users without the key may still view existing entries in the Auto Match File.	IBCNE IIV AUTO MATCH <i>*new*</i>

## ***List Manager Templates***

These are the new and modified List Manager templates:

<b>List Manager Template</b>	<b>Description</b>
IBJP IIV SITE PARAMETERS	<b>New</b> ListMan template for the Insurance Verification screen.
IBCNE AUTO MATCH BUFFER LIST	<b>New</b> List Manager template for the IBCNE AUTO MATCH BUFFER option.
IBCNE REQUEST INS INQUIRY LIST	<b>New</b> List template to lists the veteran's active and inactive insurance policies not including any ineligible (Medicare or Medicaid) policies.
IBCNE PAYER EXPAND LIST	<b>New</b> ListMan template to show detail information about a Payer and Insurance Companies to link.
IBCNE PAYER MAINT LIST	<b>New</b> ListMan template that shows the number of Insurance Companies with a matching EDI number that does not link to a Payer.
IBCNB INSURANCE BUFFER ENTRY	<b>Updated</b> – List template for insurance buffer entry listing
IBJP IIV MOST POPULAR PAYERS	<b>New</b> Listman template that allows the entry and edits of the IIV Most Popular Payer list.

## ***Protocols***

A list of the new and modified protocols is shown below:

<b>Protocol</b>	<b>Type</b>
IBCNB ENTRY RESPONSE REPORT	New, action
IBCNB ENTRY SCREEN MENU	<b>Modified</b> , menu
IBCNB LIST CHECK NAMES	New, action
IBCNB LIST SCREEN MENU	<b>Modified</b> , menu
IBCNE AUTO MATCH BUFFER EXIT	New, action
IBCNE AUTO MATCH BUFFER LINK	New, action
IBCNE AUTO MATCH BUFFER MENU	New, menu
IBCNE AUTO MATCH BUFFER SELECT	New, action
IBCNE FAST EXIT	New, action
IBCNE IIV ID REQUEST	New, event driver
IBCNE IIV IN	New, event driver
IBCNE IIV MFN OUT	New, event driver
IBCNE IIV MFN IN	New, subscriber
IBCNE IIV REGISTER	New, event driver
IBCNE IIV RESPONSE	New, subscriber
IBCNE IIV RQI OUT	New, event driver
IBCNE IIV RQV OUT	New, event driver
IBCNE IIV TABLE	New, subscriber
IBCNE IIV VER REQUEST	New, subscriber

Protocol	Type
IBCNE PAYER EXIT	New, action
IBCNE PAYER EXPAND	New, action
IBCNE PAYER EXPAND MENU	New, menu
IBCNE PAYER LINK	New, action
IBCNE PAYER MAINT MENU	New, menu
IBCNE REVERIFY INSURANCE MENU	New, menu
IBCNE SELECT INSURANCE	New, action
IBCNSC INS CO INPT CLAIMS	<b>Modified</b> , action
IBCNSC INS CO INQUIRY OFFICE	<b>Modified</b> , action
IBCNSC INS CO MAIN MAILING ADDRESS	<b>Modified</b> , action
IBCNSC INS CO PAYER	New, action
IBCNSC INS CO REMARKS	<b>Modified</b> , action
IBCNSC INS CO RX CLAIMS	<b>Modified</b> , action
IBCNSC INS CO SYNONYMS	<b>Modified</b> , action
IBCNSC INSURANCE CO	<b>Modified</b> , menu
IBJ EXIT	<b>Attach to menu</b>
IBJP AUTO BILLING SCREEN	<b>Modified</b> , action
IBJP CLAIMS TRACKING SCREEN	<b>Modified</b> , action
IBJP IB SITE PARAMETER SCREEN	<b>Modified</b> , action
IBJP IIV BATCH EXTRACT EDIT	New, action
IBJP IIV GENERAL EDIT	New, action
IBJP IIV MOST POPULAR ADD	New, action
IBJP IIV MOST POPULAR DELETE	New, action
IBJP IIV MOST POPULAR EDIT	New, action
IBJP IIV MOST POPULAR EXIT	New, action
IBJP IIV MOST POPULAR MENU	New, action
IBJP IIV MOST POPULAR MODIFY	New, action
IBJP IIV MOST POPULAR REORDER	New, action
IBJP IIV MOST POPULAR RESTORE	New, action
IBJP IIV MOST POPULAR SAVE	New, action
IBJP IIV PAT W/O INS	New, action
IBJP INS VER MENU	New, action
IBJP INS VER SCREEN	New, action
IBJP MCCR PARAMETERS MENU	<b>Modified</b> , menu
VALM BLANK 1	<b>Attach to menu</b>
VALM PRINT LIST	<b>Attach to menu</b>

### ***New HL7 Application Parameters***

A list of the new HL7 Application Parameters is shown below:

HL7 Application Parameter
IIV EC
IIV VistA

### ***New HL Logical Links***

A list of the new HL Logical Links is shown below:

<b>HL Logical Link</b>	<b>Description</b>
IIV EC	Link to Austin from VISTA
IIV SERVER	Link from Austin to VISTA

### ***Purging***

All inquiries and responses for electronic eligibility requests made through IIV are stored in the IIV TRANSMISSION QUEUE File (#365.1) and the IIV RESPONSE File (#365). Over time these files will continue to grow as more inquiries and responses are stored. Therefore, the option Purge Insurance Verification Transactions [IBCNE PURGE IIV DATA] has been provided to allow inquiry and response data that is at least six months old to be purged. Note that it is critical to the IIV software to maintain at least six months of inquiry and response data to properly determine when a new inquiry should be made. This is due to the fact that IIV uses the information in these histories to determine when inquiries were made for specific patients/payers. The IIV nightly process will send an email reminder notice to the IIV MESSAGES mail group on the first day of each month if records are found that are eligible to be purged.



# EXTERNAL INTERFACES

## *HL7 Messaging with the Eligibility Communicator (EC)*

Interfacing between the two systems is accomplished by using VistA's HL7 software to communicate with the Eligibility Communicator. The HL7 software opens a TCP/IP port to transmit data to the Vitria BusinessWare application. The HL7 software listener waits for a response and processes the data when a response is received.

## *HL7 Communication Setup*

Your facility should already be using HL7 for other VistA modules. Additional information on the setup of the HL7 package may be found at [http://vista.med.va.gov/hl7/archive/1.6/hl71\\_6p19.pdf](http://vista.med.va.gov/hl7/archive/1.6/hl71_6p19.pdf).

The logical links needed for this patch will be sent as part of the Installation KIDS.

As stated earlier in this manual, this interface is dependant on both an IP address and the node on which HL7 listens. If any of the following scenarios occur, you may need to adjust the settings for one of the IIV logical links. Without this adjustment, the interface will stop transmitting insurance inquiries and receiving eligibility responses. In other words, the interface will stop working.

- The VAMC changes which node is the start-up node.
- The VAMC changes the node on which HL7 is listening.

If either of the above scenarios is true, refer to Appendix C for information on how to adjust the Logical Links appropriately.

SYSTEM LINK MONITOR for VAMC						
NODE	MESSAGES RECEIVED	MESSAGES PROCESSED	MESSAGES TO SEND	MESSAGES SENT	DEVICE TYPE	STATE
IIV EC	850	850	850	850	NC	Inactive
IIV SERV	1697	1697	1697	1697	SS	Reading
Incoming filers running => 1						
Outgoing filers running => 1						
TaskMan running						
Link Manager running						
Select a Command:						
(N)EXT (B)ACKUP (A)LL LINKS (S)CREENED (V)IEWS (Q)UIT (?) HELP:						

The IIV EC Logical Link is the link that is used to transmit messages. It is defined as a CLIENT (SENDER). A CLIENT (SENDER) indicates that this Logical Link connects to a target system, with the current system acting as the sender. Since the IIV HL7 messages are transmitted in batch mode, it also has a definition of NON-PERSISTENT so that when all the messages have been sent, it will go to an Inactive state.

The IIV SERVER Logical Link is the link that is used to receive messages. It is defined as a SINGLE LISTENER. A SINGLE LISTENER designates that the current system is a server (listener), using a single M process to do the listening.

### ***Data Sent to the Eligibility Communicator***

As VistA sites install the Insurance Identification and Verification patch, VistA sends important information to the Eligibility Communicator. This registration dialog triggers several events; a download of the Payer Table and an update to the Eligibility Communicator's Facility Table. This table contains important information such as the facility's IP address and port number to be used for receiving EC's HL7 messages.

The Eligibility Communicator returns an MSA Acknowledgement message to the facility so that IIV processing can begin at the registering site.

- **REGISTRATION** - The Registration Request is the HL7 message that VistA sends to EC to pass site identifying information. A site sends an initial request and subsequently and daily sends additional requests to update the registration should any changes have taken place in the 24 hours before.
- **ELIGIBILITY INQUIRY** – The Eligibility Inquiry Request is the HL7 message that VistA sends to EC to ask for identification of insurance for a veteran.

### **Registration Request**

The registration request is constructed of the following HL7 segments in the same order as listed:

MSH – Message Header  
MFI – Master File Identifier  
MFE – Master File Entry

The notation is:

MSH MFI MFE.

## Registration Request MSH Segment

The Registration Request starts with the header MSH segment.

### MSH Segment

Sequence	Element Name	Use	Definition
1	Field Separator	Req	" "
2	Encoding Characters	Req	"^~\&"
3	Sending Application	Req	"IIV VistA"
4	Sending Facility		
4-1	Site Number	Req	The VistA site's station number VistA: 869.3, .04 INSTITUTION Cache: site.site_number
4-2	Site Domain Name	Req	The VistA site's Domain Name System name, e.g. AUGUSTA.MED.VA.GOV VistA: 869.3, .02 DOMAIN Cache: site.domain_name
4-3	DNS	Req	"DNS" Cache: (no mapping)
5	Receiving Application	Req	"IIV EC"
6	Receiving Facility		
6-1	Site Number	Req	The EC site's assigned station number VistA: 870,.02 INSTITUTION Cache: iiv.site_number
6-2	Site Domain Name	Req	The EC site's Domain Name System name, e.g. IIV.AUSTIN.VA.GOV VistA: 870,.03 DOMAIN Cache: iiv.domain_name
6-3	DNS	Req	"DNS" Cache: (no mapping)
7	Date/Time of Message	Req	Date/Time the Message was created. For the format, see Date/Time of Message Format Detail paragraph below this table. Cache: site.registration_as_of
9	Message Type	Req	"MFN^M01"
10	Message Control ID	Req	Sequential number assigned by VistA Cache: site.last_registration_msg_ctrl_id

Sequence	Element Name	Use	Definition
11	Processing ID	Req	“P”=Processing “T”=Test
12	Version ID	Req	“2.4”
15	Accept Acknowledgment	Req	“AL”=Always
16	Application Acknowledgment Type	Req	“AL”=Always
17	Country Code	Req	“US”

### Date/Time of Message Format Detail

The format for MSH-7, Date/Time of Message, is YYYYMMDDHHMMSSZZZZZ where:

- YYYY is the 4-digit year, e.g. “2002”.
- MM is the month number, ranging from “01” to “12”.
- DD is the day number within the month, ranging from “01” to “31”.
- HH is the hour from “00” to “23”.
- MM is the minute from “00” to “59”.
- SS is the second from “00” to “59”.
- ZZZZZ represents the time zone as a leading signed value time offset from Greenwich Mean Time of the form HHMM using the same convention for HH and MM as given above. For example, Eastern Daylight Time (EDT) is given as “-0400”.

### Registration Request MFI Segment

The MFI Segment is used to identify the site-specific master file.

#### MFI Segment

Sequence	Element Name	Use	Description
1	Master File Identifier	Req	“Facility Table”
3	File-Level Event Code	Req	“UPD”=Change file records as defined in the record-level event codes for each record that follows
4	Entered Date/Time	Req	This will be the current date when the message was generated.
5	Effective Date/Time	Req	This will be the current date when the message was generated.
6	Response Level Code	Req	“NE”=Never. Vitria does not send any MFA segments back to VistA and thus does not echo the submitted values.

## Registration Request MFE Segment

The MFE Segment identifies what the Eligibility Communicator is to do with the information. If this is the initial installation for a facility, the Record-Level Event Code (MFE-1) is “MAD”. Every night, a new message is sent to keep the information up-to-date, the Record-Level Event Code is “MUP”. A retiring facility, perhaps its VistA database is being folded into a consolidated site, sends a registration request with a Record-Level Event Code of “MDC”.

### MFE Segment

Sequence	Element Name	Use	Description
1	Record-Level Event Code	Req	One of: “MUP” = Update record for master file “MDC” = Deactivate: discontinue using record in master file, but do not delete from database
3	Effective Date/Time	Req	Effective Date/Time (If MDC then the deactivate date/time). The current date and time when VistA generated the message.
4	Primary Key Value - MFE		
4-1	FEDERAL TAX NUMBER	Req	The unique 9-digit Federal Tax Number of the VistA facility. This element carries only numeric characters, the digits from ‘0’ to ‘1’. VistA: 350.9, 1.05 FEDERAL TAX NUMBER Cache: site.federal_tax_number
4-2	IP ADDRESS	Req	The IP address that the EC uses to direct responses as a domain name or a dotted number. VistA: 870, 400.01 TCP/IP ADDRESS Cache: site. ip_address
4-3	PORT NUMBER	Req	The Port Number that EC uses to direct responses to on the VistA system. VistA: 870, 400.02 TCP/IP PORT Cache: site. ip_port
4-4	CONTACT NAME	Req	The name of a person at the VistA facility that the EC monitoring personnel can contact in case of problems with the connection. VistA: 350.9, 51.16 CONTACT PERSON Cache: site.registration_contact_name
4-5	CONTACT PHONE	Req	The phone number of the CONTACT NAME. VistA: 200, .132 OFFICE PHONE Cache: site.registration_contact_phone
4-6	CONTACT EMAIL	Req	The email address of the CONTACT NAME. VistA: 200, .151 EMAIL ADDRESS Cache: site.registration_contact_email

Sequence	Element Name	Use	Description
4-7	FRESHNESS DAYS	Opt	<p>This field is the number of days that the facility has chosen to indicate how long a record can be maintained before it is no longer current.</p> <p>VistA: 350.9, 51.01 FRESHNESS DAYS</p> <p>Cache: site.freshness_days</p>
4-8	PROCESS HL7	Req	<p>This field tells the EC to send the HL7 response messages immediately or hold and batch them. (Values are “I” = Immediate and “B” = Batch).</p> <p>VistA: 350.9, 51.13 HL7 RESPONSE PROCESSING</p> <p>Cache: site.process_hl7</p>
4-9	HL7 BATCH START TIME	Con	<p>If the facility decides to have EC hold and batch all responses at a later time (PROCESS HL7 = “I”), this field tells the EC in military time format, hhmm, the beginning of the daily period during which EC may send messages to the site. HL7 BATCH STOP TIME marks the end of the period. This value carries no import if PROCESS HL7 = “I”. The start time may be later in the day than the stop time in which case EC may send starting at the start time into the following day until the end time occurs.</p> <p>VistA: 350.9, 51.13 HL7 START TIME</p> <p>Cache: site.hl7_batch_start_time</p>
4-10	HL7 BATCH STOP TIME	Con	<p>If the facility decides to have EC hold and batch all responses at a later time (PROCESS HL7 = “I”), this field tells the EC in military time format, hhmm, the end of the daily period during which EC may send messages to the site. HL7 BATCH START TIME marks the beginning of the period. This value carries no import if PROCESS HL7 = “I”. The start time may be later in the day than the stop time in which case EC may send starting at the start time into the following day until the end time occurs.</p> <p>VistA: 350.9, 51.19 HL7 STOP TIME</p> <p>Cache: site.hl7_batch_stop_time</p>
4-11	CHECK INACTIVE	Req	<p>This field is used to identify a veteran’s no insurance status by checking a veteran’s inactive insurances for identification “fishing”. Values are “Y” for Yes and “N” for No.</p> <p>VistA: 350.9, 51.08 INQUIRE INACTIVE INSURANCE</p> <p>Cache: site . considers_inactive_insurance</p>
5	Primary Key Value Type	Req	“CE” Coded Element

## Eligibility Inquiry

The dialog deals with insurance information for one veteran. In the simplest case, the verification request is about the veteran as the subscriber and a response comes back from the payer. The notation for the request's single eligibility inquiry message is:

```
MSH [PRD] PID IN1 [IN2] {[ZEQ]}
```

The response looks like:

```
MSH MSA {[CTD]} PID IN1 [IN2] [IN3] {[ZEB {[NTE]}]}
```

In the case of a verification request when the veteran is the dependent of another person who is the insurance subscriber, the sequence goes as follows starting with the message:

```
MSH [PRD] PID GT1 IN1 [IN2] {[ZEQ]}
```

EC sends the response as:

```
MSH MSA {[CTD]} PID GT1 IN1 [IN2] [IN3] {[ZEB {[NTE]}]}
```

VistA may simply inquire of the Cache for a veteran's insurance, a blank identification request. The inquiry in this case does not identify an insurance company; there is no IN1 segment:

```
MSH PID
```

In the response, EC forms an HL7 response message for each insurance and group pair in the Cache for the patient identified in the inquiry. If EC finds cached responses too old for the site's consideration, then EC sends inquiries to the respective payers. The responses are stored in the Cached and forwarded to the inquiring site. If the veteran is a dependent then a GT1 segment appears in the message:

```
MSH MSA {[CTD]} PID [GT1] IN1 [IN2] [IN3] {[ZEB {[NTE]}]}
```

An insurance identification request may instead list one or more companies. To request that EC make inquiries of several companies, one HL7 inquiry must be sent for each of those companies. If none of the companies' responses are in the Cache for the veteran (or are recent enough), then EC sends inquiries to the payers in succession. The payer inquiries stop with the first positive response of active eligibility. EC returns an HL7 response from each payer's response. For those inquiries not made to a payer because the identification process stopped upon success, EC generates an HL7 response as though the payer responded that the patient was unknown. The notation for an identification request is:

```
{MSH [PRD] PID IN1 [IN2] {[ZEQ]}}
```

Each response uses the following notation:

```
MSH MSA {[CTD]} PID [GT1] IN1 [IN2] [IN3] {[ZEB {[NTE]}]}
```

The identification response messages may be intermixed with other responses and return to VistA in an undefined order.

Inquiry messages are an RQI^I01 event type for verification and an RQI^I03 for identification events (MSH-9). The eligibility inquiry message is constructed of the following HL7 segments in the order as listed:

```
MSH – Message Header
PRD - Provider
PID – Patient Identification
GT1 – Guarantor
IN1 – Insurance Segment
```

IN2 – Insurance Additional Information Segment  
ZEQ – Service

The message notation is:

MSH [PRD] PID [[GT1] IN1 [IN2] {[ZEQ]}]

For inquiries over this interface and where the veteran patient is the subscriber, the required segments are MSH, PID, and IN1. For inquiries where the veteran patient is a dependent, required segments are MSH, PID, GT1, and IN1. However, the patient may not be presented as a dependent in an identification inquiry message. VistA sends this message.

Data extracts run nightly at a time to be determined by the Information Resource Manager (IRM). Successful extractions are stored in the IIV TRANSMISSION QUEUE File (#365.1) from which HL7 messages are generated and sent to EC via the VistA HL7 package. There is a one-to-one correspondence between an entry in the IIV Transmission Queue File and an HL7 message. The EC sends the IIV Payer Table to the VistA site upon installation of the IIV patch. EC then sends any subsequent updates and additions of this table to VistA via the VistA HL7 package.



## Eligibility Inquiry MSH Segment

The MSH segment is a header identifying the message's source. Which tells the Eligibility Communicator for IIV the message' origin. The MESSAGE CONTROL ID (#365,.01) is used to trace the message and is returned in the EC response back to VistA.

Sequence	Element Name	Use	Definition
1	Field Separator	Req	" "
2	Encoding Characters	Req	"^~\&"
3	Sending Application	Req	"IIV VistA"
4	Sending Facility		
4-1	Site Number	Req	The VistA site's station number VistA: 869.3, .04 INSTITUTION Cache: site.site_number
4-2	Site Domain Name	Req	The VistA site's Domain Name System name, e.g. AUGUSTA.MED.VA.GOV VistA: 869.3, .02 DOMAIN Cache: site.domain_name
4-3	DNS	Req	"DNS" Cache: (no mapping)
5	Receiving Application	Req	"IIV EC"
6	Receiving Facility		
6-1	Site Number	Req	The EC site's assigned station number VistA: 870,.02 INSTITUTION Cache: iiv.site_number
6-2	Site Domain Name	Req	The EC site's Domain Name System name, e.g. IIV.AUSTIN.VA.GOV VistA: 870,.03 DOMAIN Cache: iiv.domain_name
6-3	DNS	Req	"DNS" Cache: (no mapping)
7	Date/Time of Message	Req	Date/Time the Message was created X12: (no mapping) Cache: eligibility_inquiry . hl7_datetime
9	Message Type	Req	"RQI^I01" for verification and "RQI^I03" for identification Cache: eligibility_inquiry.inquiry_kind

Sequence	Element Name	Use	Definition
10	Message Control ID	Req	Assigned by the HL7 Package on VistA Cache: eligibility_inquiry.message_control_id
11	Processing ID	Req	“P”=Processing “T” = Testing Cache: eligibility_inquiry . processing_id
12	Version ID	Req	“2.4”
14	Continuation Pointer	Con	This element is empty for all verification messages (RQI^I01) that do not have the IN1-20 and IN1-21 elements populated to indicate that all available insurance information should be returned from the EC.  This element will also be empty for the first message in a set of “bundled” identification (RQI^I03) or verification (RQI^I01) requests that have IN1-20 and IN1-21 populated. The second and subsequent messages in such a request carry the request’s first message’s Message Control ID.
15	Accept Acknowledgment	Req	“AL” = Always
16	Application Acknowledgment Type	Req	“NE” = Never
17	Country Code	Req	“US”

### Eligibility Inquiry PRD Segment

The PRD segment identifies the provider offering the care identified in the inquiry.

Sequence	Element Name	Use	Definition
2	Provider Name		The name of the provider if the provider is a doctor.
2-1	Last Name	Req	VistA: (none) X12: <i>value</i> → 270, 2100B, NM103 Name Last or Organization Name; and 1 → 270, 2100B, NM102 Entity Type Qualifier Cache: <i>value</i> → inquiry_info_receiver. name_last_or_organization_name; and “1” → inquiry_info_receiver . entity_type_qualifier
2-2	First Name	Req	VistA: (none) X12: 270, 2100B, NM104 Name First Cache: inquiry_info_receiver . name_first

Sequence	Element Name	Use	Definition
2-3	Middle Name	Opt	VistA: (none) X12: 270, 2100B, NM105 Name Middle Cache: inquiry_info_receiver . name_middle
4	Provider Location	Con	The name of the provider if the provider is not a person; or the name of the facility if the provider named in PRD-2 performs at a location other than the VistA site from which this message came. VistA: (none) X12: <i>value</i> → 270, 2100B, NM103 Name Last or Organization Name; and 2 → 270, 2100B, NM102 Entity Type Qualifier Cache: <i>value</i> → inquiry_info_receiver. name_last_or_organization_name; and “2” → inquiry_info_receiver . entity_type_qualifier
7	Provider ID	Req	VistA: (none) X12: <i>value</i> → 270, 2100B Information Receiver Name, NM109 Information Receiver Identification Number; and “SV” → 270, 2100B Information Receiver Name, NM108 Identification Code Qualifier Cache: <i>value</i> → inquiry_info_receiver. identification_number

### Eligibility Inquiry PID Segment

The PID segment identifies a veteran from the VistA database.

Sequence	Element Name	Use	Definition
3	Patient ID (Internal ID)	Req	The patient’s ICN (Integration Control Number). This element may be empty. VistA: 2;991.01 INTEGRATION CONTROL NUMBER Cache: eligibility_inquiry . integration_control_number
4	Alternate Patient ID - PID	Req	VistA: 2;.001 Internal Entry Number Cache: eligibility_inquiry . internal_entry_number
5	Patient Name	Req	VistA: 2;.01 NAME
5-1	Last Name	Req	X12 (if subscriber is the patient): 270, 2100C, NM103 Name Last or Organization Name. Cache (if subscriber is the patient): inquiry_subscriber . name_last_or_organization_name X12 (if subscriber is <i>not</i> the patient): 270, 2100D, NM103 Name Last or Organization Name. Cache (if subscriber is <i>not</i> the patient): inquiry_dependent. name_last_or_organization_name

Sequence	Element Name	Use	Definition
5-2	First Name	Req	<p>X12 (if subscriber is the patient): 270, 2100C, NM104 Name First.  Cache (if subscriber is the patient): inquiry_subscriber . name_first  X12 (if subscriber is <i>not</i> the patient): 270, 2100D, NM104 Name First.  Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . name_first</p>
5-3	Middle Name	Opt	<p>X12 (if subscriber is the patient): 270, 2100D, NM105 Name Middle.  Cache (if subscriber is the patient): inquiry_subscriber . name_middle  X12 (if subscriber is <i>not</i> the patient): 270, 2100D, NM105 Name Middle.  Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . name_middle</p>
7	Date/Time of Birth		<p>VistA: 2;.03 DATE OF BIRTH  X12 (when the subscriber is the patient): <i>value</i> → 270, 2100C, DMG02 Date Time Period; and “D8” → 270, 2100C, DMG01 Date Time Period Format Qualifier.  Cache (if subscriber is the patient): <i>value</i> → inquiry_subscriber . date_of_birth; and “D8” → inquiry_subscriber . date_time_period_format_qualifier.  X12 (when the subscriber is <i>not</i> the patient): <i>value</i> → 270, 2100D, DMG02 Date Time Period; and “D8” → 270, 2100D, DMG01 Date Time Period Format Qualifier.  Cache (if subscriber is <i>not</i> the patient): <i>value</i> → inquiry_dependent . date_of_birth ; and “D8” → inquiry_dependent . date_time_period_format_qualifier.</p>
8	Sex		<p>See  Eligibility Inquiry PID-8 Values below for the HL7 and the paired X12 values.  VistA: 2;.02 SEX  X12 (when the subscriber is the patient): 270, 2100C, DMG03 Gender Code.  Cache (if subscriber is the patient): inquiry_subscriber . gender_code  X12 (when the subscriber is <i>not</i> the patient): 270, 2100D, DMG03 Gender Code.  Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . gender_code</p>

Sequence	Element Name	Use	Definition
11	Patient Address		
11-1	Street Address Line 1		<p>VistA: 2,,111 STREET ADDRESS [LINE 1]</p> <p>X12 (when the subscriber is the patient): 270, 2100C, N301 Address Line.</p> <p>Cache (if subscriber is the patient): inquiry_subscriber. address_line_1</p> <p>X12 (when the subscriber is <i>not</i> the patient): 270, 2100D, N301 Address Line.</p> <p>Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . address_line_1</p>
11-2	Street Address Line 2		<p>VistA: 2,,112 STREET ADDRESS [LINE 2]</p> <p>X12 (when the subscriber is the patient): 270, 2100C, N302 Address Line.</p> <p>Cache (if subscriber is the patient): inquiry_subscriber . address_line_2</p> <p>X12 (when the subscriber is <i>not</i> the patient): 270, 2100D, N302 Address Line.</p> <p>Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . address_line_2</p>
11-3	City		<p>VistA: 2,,114 CITY</p> <p>X12 (when the subscriber is the patient): 270, 2100C, N401 City Name.</p> <p>Cache (if subscriber is the patient): inquiry_subscriber . city_name</p> <p>X12 (when the subscriber is <i>not</i> the patient): 270, 2100D, N401 City Name.</p> <p>Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . city_name</p>
11-4	State		<p>VistA: 2,,115 STATE</p> <p>X12 (when the subscriber is the patient): 270, 2100C, N402 State or Province Code.</p> <p>Cache (if subscriber is the patient): inquiry_subscriber . state_or_province_code</p> <p>X12 (when the subscriber is <i>not</i> the patient): 270, 2100D, N402 State or Province Code.</p> <p>Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . state_or_province_code</p>

Sequence	Element Name	Use	Definition
11-5	Zip Code		<p>VistA: 2,.116 ZIP CODE</p> <p>X12 (when the subscriber is the patient): 270, 2100C, N403 Postal Code.</p> <p>Cache (if subscriber is the patient): inquiry_subscriber . postal_code</p> <p>X12 (when the subscriber is <i>not</i> the patient): 270, 2100D, N403 Postal Code.</p> <p>Cache (if subscriber is <i>not</i> the patient): inquiry_dependent . postal_code</p>
19	SSN Number - Patient	Opt	<p>VistA: 2,.09 SOCIAL SECURITY NUMBER</p> <p>X12 (when the subscriber is the patient): <i>value</i> → 270, 2100C, REF02 Reference Identification; and “SY” → 270, 2100C, REF01 Reference Identification Qualifier.</p> <p>Cache (if subscriber is the patient): <i>value</i> → inquiry_subscriber_add_id. Reference_identification; and “SY” → inquiry_subscriber_add_id. reference_identification_qualifier</p> <p>X12 (when the subscriber is <i>not</i> the patient): <i>value</i> → 270, 2100D, REF02 Reference Identification; and “SY” → 270, 2100D, REF01 Reference Identification Qualifier.</p> <p>Cache (if subscriber is <i>not</i> the patient): <i>value</i> → inquiry_dependent_additional_id . reference_identification; and “SY” → inquiry_dependent_additional_id. reference_identification_qualifier.</p>
33	Last Update Date/Time	Req	<p>Freshness Date (the inquiring system accepts an eligibility response no older than this date.</p> <p>Cache: eligibility_inquiry.freshness_date</p>

### Eligibility Inquiry PID-8 Values

SEX value	HL7 value for this field	HL7 Meaning
M	“M”	Male
F	“F”	Female

### Eligibility Inquiry GT1 Segment

The GT1 Segment identifies a subscriber who is not the veteran only in verification inquiries. The insurance company is identified in the IN1 segment that immediately follows the GT1 segment. The GT1/IN1 pair may be used again only in identification inquiries to inquire of another insurance company for the same or another subscriber. An IN1 *not* preceded by a GT1 segment indicates an inquiry with the PID-identified veteran as the subscriber and patient, to the IN1-named insurance company

Sequence	Element Name	Use	Definition
1	Set ID - GT1	Req	“1”

Sequence	Element Name	Use	Definition
2	Guarantor Number	Req	The subscriber's member ID VistA 2.312,1 SUBSCRIBER ID Cache: <i>value</i> → inquiry_subscriber_add_id. Reference_identification; and "MI" (Member Identification Number) → inquiry_subscriber_add_id. reference_identification_qualifier
3	Guarantor Name	Req	VistA: 2.312,17 NAME OF INSURED
3-1	Last Name		X12: 270, 2100C, NM103 Name Last or Organization Name Cache: inquiry_subscriber . name_last_or_organization_name
3-2	First Name		X12: 270, 2100C, NM104 Name First Cache: inquiry_subscriber . name_first
3-3	Middle Name		X12: 270, 2100C, NM105 Name Middle Cache: inquiry_subscriber . name_middle
5	Guarantor Address		
5-1	Street Address Line 1	Opt	VistA: 2.312,3.06 INSURED'S STREET 1 X12: 270, 2100C, N301 Address Information Cache: inquiry_subscriber . address_line_1
5-2	Street Address Line 2	Opt	VistA: 2.312,3.07 INSURED'S STREET 2 X12: 270, 2100C, N302 Address Information Cache: inquiry_subscriber . address_line_2
5-3	City	Opt	VistA: 2.312,3.08 INSURED'S CITY X12: 270, 2100C, N401 City Name Cache: inquiry_subscriber . city_name
5-4	State	Opt	VistA: 2.312,3.09 INSURED'S STATE X12: 270, 2100C, N402 State or Province Code Cache: inquiry_subscriber . state_or_province_code
5-5	Zip Code	Opt	VistA: 2.312,3.1 INSURED'S ZIP X12: 270, 2100C, N403 Postal Code Cache: inquiry_subscriber . postal_code
8	Guarantor Date/Time Of Birth	Opt	VistA: 2.312,3.01 INSURED'S DOB X12: <i>value</i> → 270, 2100C, DMG02 Date Time Period; and "D8" → 270, 2100C, DMG01 Date Time Period Format Qualifier Cache: <i>value</i> → inquiry_subscriber . date_of_birth; and "D8" → inquiry_subscriber . date_time_period_format_qualifier

Sequence	Element Name	Use	Definition
9	Guarantor Sex	Opt	VistA: 2,,02 SEX X12: 270, 2100C, DMG03 Gender Code Cache: inquiry_subscriber . gender_code
12	Guarantor SSN	Opt	VistA: 2.312,3.05 INSURED'S SSN X12: <i>value</i> → 270, 2100C, REF02 Reference Identification; and “SY” → 270, 2100C, REF01 Reference Identification Qualifier Cache: <i>value</i> → inquiry_subscriber_add_id. reference_identification ; and “SY” → inquiry_subscriber_add_id . reference_identification_qualifier

### Eligibility Inquiry IN1 Segment

The IN1 segment identifies the Payer to whom the inquiry is directed.

Sequence	Element Name	Use	Definition
1	Set ID - IN1	Req	“1”
2	Insurance Plan ID	Opt	VistA 2.312,1 SUBSCRIBER ID X12: “MI” → 270, 2100C, NM108 Identification Code Qualifier; and <i>value</i> → 270, 2100C, NM109 Subscriber Primary Identifier Cache (if the patient is the subscriber): <i>value</i> → inquiry_subscriber. identification_code; and “MI” → inquiry_subscriber. identification_code_qualifier
3	Insurance Company ID	Req	VistA: 365.12,.02 VA NATIONAL PAYER ID X12: 270, 2100A, NM109 Identification Code (after translation through the Cache) Cache: payer.va_national_payer_id
4	Insurance Company Name	Req	VistA: 365.12,.01 PAYER NAME Cache: payer.name
8	Group Number	Opt	VistA: 2.312,21 NEW GROUP NUMBER X12: <i>value</i> → 270, 2100C, REF02 Reference Identification; and “6P” → 270, 2100C, REF01 Reference Identification Qualifier Cache: <i>value</i> → inquiry_subscriber . reference_identification, ; and “6P” → inquiry_subscriber . reference_identification_qualifier



Sequence	Element Name	Use	Definition
9	Group Name		<p>VistA: 2.312,20 NEW GROUP NAME</p> <p>X12 (if 270, 2100C, REF01 Reference Identification Qualifier = “6P” (Group Number)): 270, 2100C, REF03 Description (Plan Sponsor Name)</p> <p>Cache: <i>value</i> → inquiry_subscriber_add_id. plan_sponsor_name, and “6P” → inquiry_subscriber_add_id . reference_id_qualifier</p> <p>Otherwise, X12 (if 270, 2110D, REF01 Reference Identification Qualifier = “6P” (Group Number)): 270, 2100D, REF03 Plan Sponsor Name</p> <p>Cache: <i>value</i> → inquiry_dependent_add_id . plan_sponsor_name; and ‘6P’ → inquiry_dependent_add_id . reference_id_qualifier</p>
12	Plan Effective Date	Opt	<p>VistA: 2.312,8 EFFECTIVE DATE OF POLICY</p> <p>X12 (when the subscriber is the patient): <i>value</i> → 270, 2100C, DTP03 Date Time Period (as the first date in the range); “RD8” → 270, 2100C, DTP02 Date Time Period Format Qualifier; and “307” (Eligibility) → 270, 2100C, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_subscriber_date . date_start; and “RD8” → inquiry_subscriber_period_format_qualifier</p> <p>X12 (when the subscriber is <i>not</i> the patient): <i>value</i> → 270, 2100D, DTP03 Date Time Period (as the first date in the range); “RD8” → 270, 2100D, DTP02 Date Time Period Format Qualifier; and “307” (Eligibility) → 270, 2100H, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_dependent . date_start; and “RD8” → inquiry_dependent_date. period_format_qualifier</p>

Sequence	Element Name	Use	Definition
13	Plan Expiration Date	Opt	<p>VistA: 2.312,3 INSURANCE EXPIRATION DATE</p> <p>X12: <i>value</i> → 270, 2100C, DTP03 Date Time Period (as the second date in the range); “RD8” → 270, 2100C, DTP02 Date Time Period Format Qualifier; and “307” (Eligibility) → 270, 2100C, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_subscriber_date. date_end; “RD8” → inquiry_subscriber_date. date_time_period_format_qualifier; and “307” (Eligibility) → inquiry_subscriber_date. date_time_qualifier</p> <p>X12: <i>value</i> → 270, 2100D, DTP03 Date Time Period (as the second date in the range); “RD8” → 270, 2100D, DTP02 Date Time Period Format Qualifier; and “307” (Eligibility) → 270, 2100D, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_dependent . date_end “RD8” → inquiry_dependent _date. date_time_period_format_qualifier; and “307” (Eligibility) → inquiry_dependent _date. Date_time_qualifier</p>
17	Insured's Relationship To Patient	Req	<p>If VistA 2.312,6 WHOSE INSURANCE</p> <p>See</p> <p>IN1-17 Values for the values that may be used here.</p> <p>X12 (when the patient is <i>not</i> the subscriber): 270, 2100D, INS02 Individual Relationship Code</p> <p>Cache: inquiry_dependent . individual_relationship_code</p>
20	Assignment Of Benefits	Con	<p>Identification Record Number. This element numbers the eligibility inquiry messages in the identification request, starting with 1 and ending with the value in IN1-21.</p> <p>For Verification (RQI^I01) Requests: Non-Null values in the field, and IN1-21, indicate to the EC that all available insurance information should be returned via eligibility responses, even for payers different from the payer specified in the inquiry. Null values in ths and IN1-21 indicate that only information about the payer specified in the inquiry should be returned.</p> <p>For Identification (RQI^I03) Requests: This field and the IN1-21 should always be populated for these inquiries.</p> <p>Cache: eligibility_inquiry . identification_record_number</p>

Sequence	Element Name	Use	Definition
21	Coordination Of Benefits	Con	<p>Total Number of Identification Records. This element gives the count of eligibility inquiry messages in the identification request.</p> <p>For Verification (RQI^I01) Requests: Non-Null values in the field, and IN1-20, indicate to the EC that all available insurance information should be returned via eligibility responses, even for payers different from the payer specified in the inquiry. Null values in this and IN1-20 indicate that only information about the payer specified in the inquiry should be returned.</p> <p>For Identification (RQI^I03) Requests: This field and the IN1-20 should always be populated for these inquiries.</p> <p>Cache: eligibility_inquiry . identification_records_count</p>
24	Notice Of Admission Date	Opt	<p>VistA: 405,.01 Admission DateX12: <i>value</i> → 270, 2100C, DTP03 Date Time Period; “D8” → 270, 2100C, DTP02 Date Time Period Format Qualifier; and “435” → 270, 2100C, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_subscriber_date . date_time_period; “D8” → inquiry_subscriber_date . date_time_period_format_qualifier; and “435” → inquiry_subscriber_date . date_time_qualifier</p>
26	Report Of Eligibility Date	Req	<p>VistA: Service Date (as determined)</p> <p>X12: <i>value</i> → 270, 2100C, DTP03 Date Time Period; “D8” → 270, 2100C, DTP02 Date Time Period Format Qualifier; and “472” → 270, 2100C, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_subscriber_date . Date_time_period; “D8” → inquiry_subscriber_date . Date_time_period_format_qualifier; and 472” → inquiry_subscriber_date. Date_time_qualifier</p>

**IN1-17 Values**

WHOSE INSURANCE value	HL7 value for this field	X12 Definition
Spouse	“01”	Spouse
Veteran	“18”	Self
Child	“19” (this value only appears for WebMD certification payer testing)	Child
Other	“34”	Other Adult

## Eligibility Inquiry IN2 Segment

The IN2 segment presents additional insurance information.

Sequence	Element Name	Use	Definition
1	Insured's Employee ID	Req	X12: value → 270, 2100C Subscriber Name, REF02 Reference Identification; and "A6" → 270, 2100C Subscriber Name, REF01 Reference Identification Qualifier  Cache: value → inquiry_subscriber_add_id. reference_identification; and "A6" → inquiry_subscriber_add_id. reference_identification_qualifier

## Eligibility Inquiry ZEQ Segment

The ZEQ segment presents the service type codes for the eligibility inquiry. The segment is optional. If it is not present, then service type code 30, Health Benefit Plan Coverage, the general inquiry service type code, is used in the X12 message sent to the payer. The segment may appear more than once so that more than one service may be asked of the payer in one inquiry.

Sequence	Element Name	Use	Definition
1	Set ID – ZEQ	Req	Sequential number running 1, 2, 3, ... and numbering the successive ZEQ segments in one Eligibility Inquiry Message.  Cache: (no mapping)
2	Service Type Code	Req	X12 (if the patient is the subscriber): 270, 2110C, EQ01 Service Type Code  Cache(if the patient is the subscriber): inquiry_subscriber_el_or_ben. service_type_code  X12 (if the patient is the dependent): 270, 2110D, EQ01 Service Type Code  Cache (if the patient is the dependent): inquiry_dependent_el_or_ben. service_type_code )

## Data Received From the Eligibility Communicator

- **REGISTRATION ACKNOWLEDGEMENT** - The Eligibility Communicator sends the Registration Acknowledgement after receiving the request and filing the registration information in the Cache.
- **ELIGIBILITY RESPONSE** - The Eligibility Response Messages report payer's answers that did not include any error indications. Those that did are reported using the Inquiry Problem Message. Non-error response messages are an RPI^I01 event regardless as to whether the inquiry was for an identification or a verification.
- **ELIGIBILITY INQUIRY PROBLEM MESSAGES** - There are two types of Inquiry Problem Messages. One type of message occurs when EC receives an

HL7 message from a VistA facility, it is validated. If data is found missing or inaccurate so that translation to the X12 270 message cannot be done correctly, EC sends an email message to EC support staff for resolution. This is one type of Inquiry Problem message. The other type of Inquiry Problem message is after EC has sent the X12 270 messages on to the Payer and the Payer returns it with an error in the X12 'AAA' segment. Some error codes may be returned to the VistA facility as an Inquiry Problem Message for handling and some errors may remain with EC for resolution. The message event is the same for either Inquiry Problem type.

- **TABLE UPDATES** - All table messages are an MFN^M01 event. When a VistA site initially installs the IIV software, the Eligibility Communicator for IIV is notified via an MFN^M01 message. The EC sends all current Payer identifications to the VistA site as part of this enrollment process. Any subsequent modifications or additions to the Payer table maintained by the EC are sent in the same manner.

## Registration Acknowledgement

The registration acknowledgement is constructed of the following HL7 segments in the same order as listed:

MSH – Message Header  
 MSA – Message Acknowledgement  
 MFI - Master File Identifier  
 MFA – Master File ACK

The MFA Segment is the Master File ACK segment. It carries acknowledgement information for the corresponding record in the MFE segment.

The message notation is:

MSH MSA MFI MFA

**Registration Acknowledgement MSH Segment****MSH Segment**

Sequence	Element Name	Use	Definition
1	Field Separator	Req	“ ”
2	Encoding Characters	Req	“^~\&”
3	Sending Application	Req	“IIV EC”
4	Sending Facility		
4-1	Site Number	Req	EC’s station number VistA: 870,.02 INSTITUTION Cache: iiv.site_number
4-2	Site Domain Name	Req	EC’s Domain Name System name, e.g. IIV.AUSTIN.VA.GOV VistA: 870,.03 DOMAIN Cache: iiv.domain_name
4-3	DNS	Req	“DNS” Cache: (no mapping)
5	Receiving Application	Req	“IIV VistA”
6	Receiving Facility		
6-1	Site Number	Req	The VistA site’s station number VistA: 869.3, .04 INSTITUTION Cache: site.site_number
6-2	Site Domain Name	Req	The VistA site’s Domain Name System name, e.g. AUGUSTA.MED.VA.GOV VistA: 869.3, .02 DOMAIN Cache: site.domain_name
6-3	DNS	Req	“DNS” Cache: (no mapping)
7	Date/Time of Message	Req	Date/Time the Message was created.  For the formatting, see the Date/Time of Message Format Details paragraph below.
9	Message Type	Req	“MFK^M01”
10	Message Control ID	Req	Sequential number assigned by the Eligibility Communicator.
11	Processing ID	Req	The Process ID presented in the Registration Request
12	Version ID	Req	“2.4”
15	Accept Acknowledgement	Req	“AL” = Always

Sequence	Element Name	Use	Definition
16	Application Acknowledgment Type	Req	“NE”=Never
17	Country Code	Req	“US”

### Date/Time of Message Format

The format for MSH-7, Date/Time of Message, is YYYYMMDDHHMMSSZZZZZ where:

- YYYY is the 4-digit year, e.g. “2002”.
- MM is the month number, ranging from “01” to “12”.
- DD is the day number within the month, ranging from “01” to “31”.
- HH is the hour from “00” to “23”.
- MM is the minute from “00” to “59”.
- SS is the second from “00” to “59”.
- ZZZZZ represents the time zone as a leading signed value time offset from Greenwich Mean Time of the form HHMM using the same convention for HH and MM as given above. For example, Eastern Daylight Time (EDT) is given as “-0400”.

### Registration Acknowledgement MSA Segment

The MSA Segment is the Message Acknowledgement segment. It carries acknowledgement information for the HL7 message received.

Sequence	Element Name	Use	Definition
1	Acknowledgment Code	Req	“AA”=Accept. “AE”=Error and VistA is to not send eligibility inquiry messages until a subsequent registration request receives an “AA” Acknowledgement Code.
2	Message Control ID	Req	Returned Message Control ID. This should match the sending message’s Message Control ID. Cache: site.last_registration_msg_ctrl_id

### Registration Acknowledgement MFI Segment

The MFI Segment is used to identify the site-specific master file.

Sequence	Element Name	Use	Description
1	Master File Identifier	Req	“Facility Table”
3	File-Level Event Code	Req	“UPD” = Update. Change file records as defined in the record-level event codes for each record that follows
6	Response Level Code	Req	“NE” = Never. No application-level response needed



## Eligibility Response

The Eligibility Response Messages report payer's answers that did not include any error indications. Those that did are reported using the Inquiry Problem Message. Non-error response messages are an RPI^I01 event regardless as to whether the inquiry was for an identification or a verification. Per the HL7 standard, the insurance response event is constructed of the following HL7 segments in the order as listed:

- MSH – Message Header
- MSA - Message Acknowledgment
- CTD – Contact Data
- PID – Patient Identification
- GT1 – Guarantor
- IN1 – Insurance
- IN2 – Insurance Additional Info
- IN3 – Insurance Additional Info – Certification
- ZEB – Eligibility Benefits
- NTE – Notes and Comments

For responses the notation is:

MSH MSA {[CTD]} PID {[GT1]} IN1 [IN3] {[ZEB {[NTE]}]}

GT1 is only present to identify the subscriber (guarantor) if the patient is the dependent. Our notation differs from the standard by not allowing for a PRD segment to precede the CTD segments, the possibility of an IN2 segment, and by associating the NTE segments with the non-standard but permitted ZEB segment.

### Eligibility Response MSH Segment

The MSH segment is a header which that is used by the Eligibility Communicator for IIV to direct a response message back to the appropriate VistA site.

Sequence	Element Name	Use	Definition
1	Field Separator	Req	" "
2	Encoding Characters	Req	"^~\&"
3	Sending Application	Req	"IIV EC"
4	Sending Facility		
4-1	Site Number	Req	EC's station number VistA: 870,.02 INSTITUTION Cache: iiv.site_number
4-2	Site Domain Name	Req	EC's Domain Name System name, e.g. IIV.AUSTIN.VA.GOV VistA: 870,.03 DOMAIN Cache: iiv.domain_name
4-3	DNS	Req	"DNS" Cache: (no mapping)

Sequence	Element Name	Use	Definition
5	Receiving Application	Req	“IIV VistA”
6	Receiving Facility		
6-1	Site Number	Req	The VistA site’s station number VistA: 869.3, .04 INSTITUTION Cache: site.site_number
6-2	Site Domain Name	Req	The VistA site’s Domain Name System name, e.g. AUGUSTA.MED.VA.GOV VistA: 869.3, .02 DOMAIN Cache: site.domain_name
6-3	DNS	Req	“DNS” Cache: (no mapping)
7	Date/Time of Message	Req	Date/Time EC created the Message. For the format, see paragraph below Date/Time of Message Format Detail. X12: 271, no loop, BHT04 Date; and 271, no loop, BHT05 Time Cache: (no mapping)
9	Message Type	Req	“RPI^I01”
10	Message Control ID	Req	Sequential number assigned by the Eligibility Communicator. Cache: eligibility_response.message_control_id
11	Processing ID	Req	“P” = Processing “T” = Testing Cache: eligibility_response . processing_id
12	Version ID	Req	“2.4”
15	Accept Acknowledgment	Req	“AL”=Always
16	Application Acknowledgment Type	Req	“NE”=Never
17	Country Code	Req	“US”

### Date/Time of Message Format

The format for MSH-7, Date/Time of Message, is YYYYMMDDHHMMSSZZZZZ where:

- YYYY is the 4-digit year, e.g. “2002”.
- MM is the month number, ranging from “01” to “12”.
- DD is the day number within the month, ranging from “01” to “31”.
- HH is the hour from “00” to “23”.
- MM is the minute from “00” to “59”.
- SS is the second from “00” to “59”.
- ZZZZZ represents the time zone as a leading signed value time offset from Greenwich Mean Time of the form HHMM using the same convention for HH and MM as given above. For example, Eastern Daylight Time (EDT) is given as “-0400”.

### Eligibility Response MSA Segment

Sequence	Element Name	Use	Definition
1	Acknowledgment Code	Req	“AA”=Accept
2	Message Control ID	Req	Returned Message Control ID. This should match the sending message’s Message Control ID. VistA: 365, .01 MESSAGE CONTROL ID Cache: eligibility_inquiry . message_control_id
4	Expected Sequence Number	Req	Trace Number as a numeric string 9 characters in length. VistA: 365, .09 TRACE NUMBER X12: 271, IEA02 Interchange Control Number Cache: response_trace_number . trace_number (where trace_type_code = ‘1’, reference identification is trace number)

### Eligibility Response CTD Segment

There can be repeating contact (CTD) segments mapped from the X12 271 messages. Each 271 PER segment nets up to three CTD segments. EC creates a CTD separate segment from (PER02, PER03 and PER04); (PER02, PER05 and PER06); and (PER02, PER07 and PER08) if either of the latter two elements in each triple is not empty. If PER02 is not empty and PER03-8 are empty, then one CTD results with CTD-2 set to PER02 and CTD-5 and CTD-6 set to empty.

Sequence	Element Name	Use	Definition
2	Contact Name	Con	<p>At least one of the elements CTD-2, CTD-5 and CTD-6 must not be empty.</p> <p>VistA: 365.03, .01 CONTACT PERSON</p> <p>X12: 271, 2100A, PER02 Name</p> <p>Cache: source_contact.name</p> <p>X12: 271, 2100C, PER02 Name</p> <p>Cache: source_contact.name</p> <p>X12: 271, 2120C, PER02 Name</p> <p>Cache: source_contact.name</p> <p>X12: 271, 2120D, PER02 Name</p> <p>Cache: source_contact.name</p>

Sequence	Element Name	Use	Definition
5	Contact Communication Information	Con	<p>At least one of the elements CTD-2, CTD-5 and CTD-6 must not be empty.</p> <p>VistA: 365.03, .03 COMMUNICATION NUMBER #1</p> <p>X12: 271, 2100C, PER04 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2100C, PER06 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2100C, PER08 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2100D, PER04 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2100D, PER06 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2100D, PER08 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2120C, PER04 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2120C, PER06 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2120C, PER08 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2120D, PER04 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2120D, PER06 Communication Number</p> <p>Cache: source_contact_number . communication_number</p> <p>X12: 271, 2120D, PER08 Communication Number</p> <p>Cache: source_contact_number . communication_number</p>
6	Preferred Method of Contact - Provider	Con	<p>At least one of the elements CTD-2, CTD-5 and CTD-6 must not be empty. See the CTD-6 Values below.</p> <p>VistA: 365.03, .02 COMMUNICATION QUALIFIER #1</p> <p>X12: 271, 2100C, PER03 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2100C, PER05 Communication Number Qualifier</p> <p>Cache: source_contact_number .</p>

Sequence	Element Name	Use	Definition
			<p>communication_number_qualifier</p> <p>X12: 271, 2100C, PER07 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2100D, PER03 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2100D, PER05 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2100D, PER07 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2120C, PER03 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2120C, PER05 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2120C, PER07 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2120D, PER03 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2120D, PER05 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p> <p>X12: 271, 2120D, PER07 Communication Number Qualifier</p> <p>Cache: source_contact_number . communication_number_qualifier</p>

**CTD-6 Values**

Value	Definition
ED	Electronic Data Interchange Access Number
EM	Electronic Mail
EX	Telephone Extension
EX	Facsimile
HP	Home Phone Number
TE	Telephone
WP	Work Phone Number

**Eligibility Response PID Segment**

Only one PID segment is in the response message.

Sequence	Element Name	Use	Definition
3	Patient ID (Internal ID)	Con	The value is empty if and only if the associated inquiry's PID-3 was empty.  VistA: 2;991.01 INTEGRATION CONTROL NUMBER from the inquiry's PID segment's Patient ID (Internal ID) field  Cache: eligibility_inquiry . integration_control_number
4	Alternate Patient ID – PID	Req	VistA: 2;.001 Internal Entry Number from the inquiry's PID segment's Alternate Patient ID – PID field.  Cache: eligibility_inquiry . internal_entry_number
5	Patient Name		VistA 2;.01 NAME
5-1	Last Name	Opt	X12 (if the subscriber is the patient): 271, 2100C, NM103 Name Last or Organization Name  Cache (if the subscriber is the patient): response_subscriber.name_last_or_organization_name  X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, NM103 Name Last or Organization Name  Cache (if the subscriber is <i>not</i> the patient): response_dependent.last_or_organization_name
5-2	First Name	Opt	X12 (if the subscriber is the patient): 271, 2100C, NM104 Name First  Cache (if the subscriber is the patient): response_subscriber.name_first  X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, NM104 Name First  Cache (if the subscriber is <i>not</i> the patient): response_dependent.name_first

Sequence	Element Name	Use	Definition
5-3	Middle Name	Opt	<p>X12 (when the subscriber is the patient): 271, 2100C, NM105 Name Middle</p> <p>Cache (if the subscriber is the patient): response_subscriber.name_middle</p> <p>X12 (when the subscriber is <i>not</i> the patient): 271, 2100D, NM105 Name Middle</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent.name_middle</p>
7	Date/Time of Birth	Opt	<p>VistA: 2;.03 DATE OF BIRTH</p> <p>X12 (when the subscriber is the patient): 271, 2100C, DMG02 Date Time Period</p> <p>Cache (if the subscriber is the patient): response_subscriber . date_of_birth</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, DMG02 Date Time Period</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent . date_of_birth</p>
8	Sex	Opt	<p>VistA: 2;.02 SEX</p> <p>X12 (if the subscriber is the patient): 271, 2100C, DMG03 Gender Code</p> <p>Cache (if the subscriber is the patient): response_subscriber . gender_code</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, DMG03 Gender Code</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent . gender_code</p>
11	Patient Address		
11-1	Street Address Line 1	Opt	<p>VistA: 2;.111 STREET ADDRESS [LINE 1]</p> <p>X12 (if the subscriber is the patient): 271, 2100C, N301 Address Information</p> <p>Cache (if the subscriber is the patient): response_subscriber.address_line_1;</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, N301 Address Information</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent.address_line_1</p>



Sequence	Element Name	Use	Definition
11-2	Street Address Line 2	Opt	<p>VistA: 2,.112 STREET ADDRESS [LINE 2]</p> <p>X12 (when the subscriber is the patient): 271, 2100C, N302 Address Information</p> <p>Cache (if the subscriber is the patient): response_subscriber . address_line_2;</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, N302 Address Information</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent . address_line_</p>
11-3	City	Opt	<p>VistA: 2,.114 CITY</p> <p>X12 (when the subscriber is the patient): 271, 2100C, N401 City Name</p> <p>Cache (if the subscriber is the patient): response_subscriber . city_name;</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, N401 City Name</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent . city_name</p>
11-4	State	Opt	<p>VistA: 2,.115 STATE</p> <p>X12 (if the subscriber is the patient): 271, 2100C, N402 State or Province Code</p> <p>Cache (if the subscriber is the patient): response_subscriber.state_or_province_code;</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, N402 State or Province Code</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent.state_or_province_code</p>
11-5	Zip Code	Opt	<p>VistA: 2,.116 ZIP CODE</p> <p>X12 (if the subscriber is the patient): 271, 2100C, N403 Postal Code</p> <p>Cache (if the subscriber is the patient): response_subscriber.postal_code;</p> <p>X12 (if the subscriber is <i>not</i> the patient): 271, 2100D, N403 Postal Code</p> <p>Cache (if the subscriber is <i>not</i> the patient): response_dependent.postal_code</p>

Sequence	Element Name	Use	Definition
19	SSN Number – Patient	Opt	<p>VistA: 2,.09 SOCIAL SECURITY NUMBER</p> <p>X12 (if the subscriber is the patient; and 271, 2100C, REF01 Reference Identification Qualifier = “SY”): 271, 2100C, REF02 Reference Identification</p> <p>Cache (if the subscriber is the patient; and response_subscriber. reference_identification_qualifier = “SY” (reference_identification is patient SSN number): response_subscriber . reference_identification</p> <p>X12 (if the dependent is the patient; and 271, 2100D, REF01 Reference Identification Qualifier = “SY”): 271, 2100D, REF02 Reference Identification</p> <p>Cache (if the subscriber is <i>not</i> the patient; and response_dependent. reference_identification_qualifier = “SY”, reference_identification is patient SSN number): response_dependent . reference_identification</p>
29	Patient Death Date and Time	Opt	<p>VistA: 365, 1.16 DATE OF DEATH</p> <p>X12 (if the patient is the subscriber; and 271, 2000C, DTP01 Date/Time Qualifier = “442” (Date of Death); and 271, 2000C, DTP02 Date Time Period Format Qualifier = “D8” (CCYYMMDD)): 271, 2000C, DTP03 Date Time Period</p> <p>Cache (when the subscriber is the patient; and response_subscriber. date_time_qualifier = “442”; and response_subscriber. date_time_period_qualifier = “D8”): response_subscriber. date_of_death</p> <p>X12 (if the patient is the dependent; and 271, 2000D, DTP01 Date/Time Qualifier = “442” (Date of Death); and 271, 2000D, DTP02 Date Time Period Format Qualifier = “D8” (CCYYMMDD)): 271, 2000D, DTP03 Date Time Period</p> <p>Cache (when the subscriber is <i>not</i> the patient; and response_dependent. date_time_qualifier = “442”; and response_dependent. date_time_period_qualifier = “D8”): response_dependent. date_of_death</p>

## Eligibility Response GT1 Segment

The GT1 Segment identifies a subscriber who is not the veteran.

Sequence	Element Name	Use	Definition
1	Set ID - GT1	Req	"1"
2	Guarantor Number	Opt	VistA: 2.312,21 NEW GROUP NUMBER (The group number of the subscriber) X12: 271, 2100C, NM109 Identification Code (Subscriber Primary Identifier) Cache: response_subscriber . subscriber_primary_identifier
3	Guarantor Name		VistA: 2.312, 17 NAME OF INSURED
3-1	Last Name	Opt	X12: 271, 2100C, NM103 Name Last or Organization Name Cache: response_subscriber . name_last_or_organization_name
3-2	First Name	Opt	X12: 271, 2100C, NM104 Name First Cache: response_subscriber . name_first
3-3	Middle Name	Opt	X12: 271, 2100C, NM105 Name Middle Cache: response_subscriber . name_middle
5	Guarantor Address		
5-1	Street Address Line 1	Opt	VistA: 2.312,3.06 INSURED'S STREET 1 X12: 271, 2100C, N301 Address Information Cache: response_subscriber . address_line_1
5-2	Street Address Line 2	Opt	VistA: 2.312,3.07 INSURED'S STREET 2 X12: 271, 2100C, N302 Address Information Cache: response_subscriber . address_line_2
5-3	City	Opt	VistA: 2.312,3.08 INSURED'S CITY X12: 271, 2100C, N401 City Name Cache: response_subscriber . city_name
5-4	State	Opt	VistA: 2.312,3.09 INSURED'S STATE X12: 271, 2100C, N402 State or Province Code Cache: response_subscriber . state_or_province_code
5-5	Zip Code	Opt	VistA: 2.312,3.1 INSURED'S ZIP X12: 271, 2100C, N403 Postal Code Cache: response_subscriber . postal_code
8	Guarantor Date/Time Of Birth	Opt	VistA: 2.312, 3.01 INSURED'S DOB X12: 271, 2100C, DMG02 Date Time Period Cache: response_subscriber . date_of_birth

Sequence	Element Name	Use	Definition
9	Guarantor Sex	Opt	VistA: 365, 1.04 INSURED SEX X12: 271, 2100C, DMG03 Gender Code Cache: response_subscriber . gender_code
12	Guarantor SSN	Opt	VistA: 2.312, 3.05 INSURED'S SSN X12 (if 271, 2100C, REF01 Reference Identification Qualifier = "SY"): 271, 2100C, REF02 Reference Identification Cache (if response_subscriber . reference_identification_qualifier is "SY", reference_identification is SSN number): response_subscriber_add_id . reference_identifier

## Eligibility Response IN1 Segment

The IN1 segment identifies the Payer to whom the inquiry is directed. There is at least one IN1 segment.

Sequence	Element Name	Use	Definition
1	Set ID - IN1	Req	"1"
2	Insurance Plan ID	Req	<p>VistA: 2.312,1 SUBSCRIBER ID</p> <p>For the following mappings, choose the first in each category that is present and is not empty or NULL. The order gives precedence to the subscriber's member ID to keep identifying the subscriber in cases where the veteran is the dependent. Further, we use the policy number in lieu of a member ID if the latter is not present.</p> <p>X12: 271, 2100C, NM109 Identification Code (Subscriber Primary Identifier)</p> <p>Cache (when the subscriber is the patient): response_subscriber.subscriber_primary_identifier</p> <p>X12 (if 271, 2100C, REF01 Reference Identification Qualifier = "IG" (Insurance Policy Number): 271, 2100C, REF02 (Reference Identification (Subscriber Supplemental Identifier))</p> <p>Cache (if response_subscriber_add_id . reference_id_qualifier = 'IG' (Insurance Policy Number)): response_subscriber_add_id . reference_identifier</p> <p>X12 (if 271, 2100C, REF01 Reference Identification Qualifier = "1L" (Group or Policy Number): 271, 2100C, REF02 (Reference Identification (Subscriber Supplemental Identifier))</p> <p>Cache (if response_subscriber_add_id . reference_id_qualifier = '1L' (Group or Policy Number)): response_subscriber_add_id . reference_identifier</p> <p>X12: 271, 2100D, NM109 Identification Code (Dependent Primary Identifier)</p> <p>Cache: response_dependent . dependent_primary_identifier</p> <p>X12 (if 271, 2100D, REF01 Reference Identification Qualifier = "IG" (Insurance Policy Number): 271, 2100C, REF02 (Reference Identification (Dependent Supplemental Identifier))</p> <p>Cache (if response_dependent_add_id . reference_id_qualifier = 'IG' (Insurance Policy Number)): response_dependent_add_id . reference_identifier</p> <p>X12 (if 271, 2100D, REF01 Reference Identification Qualifier = "1L" (Group or Policy Number): 271, 2100C, REF02 (Reference Identification (Dependent Supplemental Identifier))</p> <p>Cache (if response_dependent_add_id . reference_id_qualifier = '1L' (Group or Policy Number)): response_subscriber_add_id . reference_identifier</p>
3	Insurance Company ID	Req	<p>VistA: 365.12,.02 VA NATIONAL PAYER ID</p> <p>X12: 271, 2100A, NM109 Identification Code after translation</p>

Sequence	Element Name	Use	Definition
			through the Cache Cache: payer . va_national_payer_id
4	Insurance Company Name	Opt	VistA: 355.33,20.01 INSURANCE COMPANY NAME X12: 271, 2100A, NM103 Name Last or Organization Name Cache: response_info_source . name_last_or_organization_name
8	Group Number	Opt	VistA: 355.3,.04 GROUP NUMBER X12 (if 271, 2100C, REF01 Reference Identification Qualifier = “6P” (Group Number)): 271, 2100C, REF02 Reference Identifier Cache (if response_subscriber_add_id . reference_id_qualifier = “6P” (Group Number)): response_subscriber_add_id . reference_identifier X12 (if 271, 2100C, REF01 Reference Identification Qualifier = “1L” (Group or Policy Number)): 271, 2100C, REF02 Reference Identifier Cache (if response_subscriber_add_id . reference_id_qualifier = “1L” (Group or Policy Number)): response_subscriber_add_id . reference_identifier X12 (if 271, 2100D, REF01 Reference Identification Qualifier = “6P” (Group Number)): 271, 2100D, REF02 Reference Identification Cache (if response_dependent_add_id . reference_id_qualifier = “6P” (Group Number)): response_dependent_add_id . reference_identifier X12 (if 271, 2100D, REF01 Reference Identification Qualifier = “1L” (Group or Policy Number)): 271, 2100D, REF02 Reference Identifier Cache (if response_dependent_add_id . reference_id_qualifier = “1L” (Group or Policy Number)): response_dependent_add_id . reference_identifier
9	Group Name	Opt	VistA: 355.3,.03 GROUP NAME X12 (if 271, 2100C, REF01 Reference Identification Qualifier = “6P” (Group Number)): 271, 2100C, REF03 Plan Sponsor Name Cache (if response_subscriber_add_id . reference_identification_qualifier = ‘6P’ (Group Number)): response_subscriber_add_id . plan_sponsor_name X12 (if 271, 2100C, REF01 Reference Identification Qualifier = “1L” (Group or Policy Number)): 271, 2100C, REF03 Plan Sponsor Name Cache (if response_subscriber_add_id . reference_identification_qualifier = ‘1L’ (Group or Policy Number)): response_subscriber_add_id . plan_sponsor_name X12 (if 271, 2100D, REF01 Reference Identification Qualifier = “6P” (Group Number)): 271, 2100D, REF03 Plan Sponsor Name Cache (if response_dependent_add_id .

Sequence	Element Name	Use	Definition
			<p>reference_identification_qualifier = '6P'):  response_dependent_add_id . plan_sponsor_name</p> <p>X12 (if 271, 2100D, REF01 Reference Identification Qualifier = "1L" (Group or Policy Number)): 271, 2100D, REF03 Plan Sponsor Name</p> <p>Cache (if response_dependent_add_id .  reference_identification_qualifier = '1L'):  response_dependent_add_id . plan_sponsor_name</p>
12	Plan Effective Date	Opt	<p>VistA: 2.312, 8 EFFECTIVE DATE OF POLICY</p> <p>X12 (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = "342" (Premium Paid to Date Begin), "346" (Plan Begin), or "356" (Eligibility Begin)): 271, 2100C, DTP03 Date Time Period</p> <p>X12 (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = "539" (Policy Effective); and 271, 2100C, DTP02 Date Time Period Format Qualifier = "D8"): 271, 2100C, DTP03 Date Time Period</p> <p>X12 (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = "539" (Policy Effective); and 271, 2100C, DTP02 Date Time Period Format Qualifier = "RD8"): the first of the two date values in 271, 2100C, DTP03 Date Time Period</p> <p>Cache (if the subscriber is the patient; and response_subscriber_date . date_time_qualifier = "342" (Premium Paid to Date Begin), "346" (Plan Begin), or "356" (Eligibility Begin)): response_subscriber_date . date_start</p> <p>Cache (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = "539" (Policy Effective); and 271, 2100C, DTP02 Date Time Period Format Qualifier = "D8"): response_subscriber_date . date_start</p> <p>Cache (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = "539" (Policy Effective); and 271, 2100C, DTP02 Date Time Period Format Qualifier = "RD8"): response_subscriber_date . date_start</p> <p>X12 (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = "342" (Premium Paid to Date Begin), "346" (Plan Begin), or "356" (Eligibility Begin)): 271, 2100D, DTP03 Date Time Period</p> <p>X12 (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = "539" (Policy Effective); and 271, 2100D, DTP02 Date Time Period Format Qualifier = "D8"): 271, 2100D, DTP03 Date Time Period</p> <p>X12 (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = "539" (Policy Effective); and 271, 2100D, DTP02 Date Time Period Format Qualifier = "RD8"): the first of the two date values in 271, 2100D, DTP03 Date Time Period</p> <p>Cache (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = "342" (Premium Paid to Date Begin), "346"</p>

Sequence	Element Name	Use	Definition
			<p>(Plan Begin), or “356” (Eligibility Begin)): response_dependent_date . date_start</p> <p>Cache (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = “539” (Policy Effective); and 271, 2100D, DTP02 Date Time Period Format Qualifier = “D8”): response_dependent_date . date_start</p> <p>Cache (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = “539” (Policy Effective); and 271, 2100D, DTP02 Date Time Period Format Qualifier = “RD8”): response_dependent_date . date_start</p>
13	Plan Expiration Date	Opt	<p>VistA: 2.312, 3 INSURANCE EXPIRATION DATE</p> <p>X12 (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = “343” (Premium Paid to Date End), “347” (Plan End), or “357” (Eligibility End)): 271, 2100C, DTP03 Date Time Period</p> <p>X12 (if the subscriber is the patient; and 271, 2100C, DTP01 Date/Time Qualifier = “539” (Policy Effective); and 271, 2100C, DTP02 Date Time Period Format Qualifier = “RD8”): the second of the two date values in 271, 2100C, DTP03 Date Time Period</p> <p>X12 (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = “343” (Premium Paid to Date End), “347” (Plan End), or “357” (Eligibility End)): 271, 2100D, DTP03 Date Time Period</p> <p>X12 (if the dependent is the patient; and 271, 2100D, DTP01 Date/Time Qualifier = “539” (Policy Effective); and 271, 2100D, DTP02 Date Time Period Format Qualifier = “RD8”): the second of the two date values in 271, 2100D, DTP03 Date Time Period</p> <p>Cache (if the subscriber is the patient; and response_subscriber_date . date_time_qualifier = “343” (Premium Paid to Date End), “347” (Plan End), or “357” (Eligibility End)): response_subscriber_date . date_end</p> <p>Cache (if the subscriber is the patient; and response_subscriber_date . date_time_qualifier = “539” (Policy Effective)): response_subscriber_date . date_end</p> <p>Cache (if the dependent is the patient; and response_subscriber_date . date_time_qualifier = “343” (Premium Paid to Date End), “347” (Plan End), or “357” (Eligibility End)): response_dependent_date . date_end</p> <p>Cache (if the dependent is the patient; and response_dependent_date . date_time_qualifier = “539” (Policy Effective)): response_dependent_date . date_end</p>
17	Insured's Relationship To Patient	Opt	<p>See</p> <p>IN1-17 Values on page 53 for the values that may be used here.</p> <p>VistA: 2.312, 16 PT. RELATIONSHIP TO INSURED</p> <p>X12 (if the patient is the subscriber): 271, 2100C, INS02 Individual</p>



Sequence	Element Name	Use	Definition
			<p>Relationship Code</p> <p>Cache (if the patient is the subscriber): response_subscriber.individual_relationship_code</p> <p>X12 (if the patient is the dependent): 271, 2100D, INS02 Individual Relationship Code</p> <p>Cache (if the patient is the dependent): response_dependent.individual_relationship_code</p>
22	Coord Of Ben. Priority	Req	<p>VistA: 2.312, 2 COORDINATION OF BENEFITS</p> <p>X12 (if the subscriber is the patient): 271, 2120C Subscriber Benefit Related Entity Name, NM101 Entity Identifier Code per the translation given in the</p> <p>Eligibility Response IN1-22 Translation below.</p> <p>Cache (if the patient is the subscriber): response_subscriber.coordination_of_benefits</p> <p>X12 (if the dependent is the patient): 271, 2120D Subscriber Benefit Related Entity Name, NM101 Entity Identifier Code per the translation given in the</p> <p>Eligibility Response IN1-22 Translation below.</p> <p>Cache (if the patient is the dependent): response_dependent.coordination_of_benefits</p>
26	Report Of Eligibility Date	Req	<p>VistA: Service Date (as determined)</p> <p>X12: <i>value</i> → 270, 2100C, DTP03 Date Time Period; “D8” → 270, 2100C, DTP02 Date Time Period Format Qualifier; and “472” → 270, 2100C, DTP01 Date/Time Qualifier</p> <p>Cache: <i>value</i> → inquiry_subscriber_date.Date_time_period; “D8” → inquiry_subscriber_date.Date_time_period_format_qualifier; and “472” → inquiry_subscriber_date.Date_time_qualifier</p>
29	Verification date/time	Opt	<p>VistA: 365, 1.19 VERIFICATION DATE/TIME</p> <p>X12 (if the patient is the subscriber; and 271, 2100C, DTP01 Date/Time Qualifier = “636” (Date of Last Update)): 271, 2100C, DTP03 Date Time Period (first value if DTP03 is a range (DTP02 = “RD8”))</p> <p>Cache (if Date/Time Qualifier = “636”; and Date Time Period Format Qualifier = “RD8” (date time period is verification date)): response_subscriber.verification_date</p> <p>Otherwise, X12 (if the patient is the dependent; and 271, 2100D, DTP01 Date/Time Qualifier = “636” (Date of Last Update)): 271, 2100D, DTP03 Date Time Period (first value if DTP03 is a range (DTP02 = “RD8”))</p> <p>Cache (if Date/Time Qualifier = “636” and Date Time Period Format Qualifier = “RD8”, date time period is verification date): response_dependent.verification_date</p>
36	Policy Number	Opt	X12 (if 271, 2100C, REF01 Reference Identification Qualifier =

Sequence	Element Name	Use	Definition
			<p>“IG” (Insurance Policy Number)): 271, 2100C, REF02 Reference Identification</p> <p>Cache: response_subscriber.policy_number</p> <p>X12 (if 271, 2100D, REF01 Reference Identification Qualifier = “IG” (Insurance Policy Number)): 271, 2100D, REF02 Reference Identification</p> <p>Cache (if response_subscriber . policy_number IS NULL): response_dependent.policy_number</p>

### Eligibility Response IN1-22 Translation

X12 Code	HL7 Code
“PR” (Payer)	“” (empty)
“PRP” (Primary Payer)	“1”
“SEP” (Secondary Payer)	“2”
“TTP” (Tertiary Payer)	“3”

### Eligibility Response IN3 Segment

The IN3 segment contains the eligibility and benefit information on a subscriber from the payer.

Sequence	Element Name	Use	Description
1	Set ID - IN3	Req	Sequential number ranging from 1 by 1
6	Certification Date/Time	Req	<p>X12 (if 271, 2100C, DTP01 Date Time Qualifier = “458” (Certification)): 271, 2100C, DTP03 Date Time Period</p> <p>Cache (if 271, 2100C, DTP01 Date Time Qualifier = “458” (Certification)): response_subscriber_el_or_ben . certification_date</p> <p>X12: (if 271, 2100D, DTP01 Date Time Qualifier = “458” (Certification)): 271, 2100D, DTP03 Date Time Period</p> <p>Cache (if 271, 2100C, DTP01 Date Time Qualifier = “458” (Certification)): response_dependent_el_or_ben . certification_date</p>

**Eligibility Response ZEB Segment**

Sequence	Element Name	Use	Description
1	Set ID - ZEB	Req	Sequential number running 1, 2, 3, ... and numbering the successive ZEB segments in one Eligibility Response Message.  VistA: (no mapping) Cache: (no mapping)
2	Eligibility or Benefit Information	Co n	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .02 ELIGIBILITY/BENEFIT INFO  X12 (if the patient is the subscriber): 271, 2110C, EB01 Eligibility or Benefit Information  Cache (if the patient is the subscriber): response_subscriber_el_or_ben . eligibility_or_benefit_info  X12 (if the patient is the dependent): 271, 2110D, EB01 Eligibility or Benefit Information  Cache (if the patient is the dependent): response_dependent_el_or_ben . eligibility_or_benefit_info
3	Coverage Level	Co n	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .03 COVERAGE LEVEL  X12 (if the patient is the subscriber): 271, 2110C, EB02 Coverage Level Code  Cache (if the patient is the subscriber): response_subscriber_el_or_ben . coverage_level_code  X12 (if the patient is the dependent): 271, 2110D, EB02 Coverage Level Code  Cache (if the patient is the dependent): response_dependent_el_or_ben . coverage_level_code
4	Service Type	Co n	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .04 SERVICE TYPE  X12 (if the patient is the subscriber): 271, 2110C, EB03 Service Type Code  Cache (if the patient is the subscriber): response_subscriber_el_or_ben . service_type_code  X12 (if the patient is the dependent): 271, 2110D, EB03 Service Type Code  Cache (if the patient is the dependent): response_dependent_el_or_ben . service_type_code

Sequence	Element Name	Use	Description
5	Insurance Type	Con	<p>At least one of the elements ZEB-2 through ZEB-13 must not be empty.</p> <p>VistA: 365.02, .05 INSURANCE TYPE</p> <p>X12 (if the patient is the subscriber): 271, 2110C, EB04 Insurance Type Code</p> <p>Cache (if the patient is the subscriber): response_subscriber_el_or_ben . insurance_type_code</p> <p>X12 (if the patient is the dependent): 271, 2110D, EB04 Insurance Type Code</p> <p>Cache (if the patient is the dependent): response_dependent_el_or_ben . insurance_type_code</p>
6	Plan Coverage	Con	<p>At least one of the elements ZEB-2 through ZEB-13 must not be empty.</p> <p>VistA: 365.02, .06 PLAN COVERAGE DESCRIPTION</p> <p>X12 (if the patient is the subscriber): 271, 2110C, EB05 Plan Coverage Description</p> <p>Cache: response_subscriber_el_or_ben . plan_coverage_description</p> <p>X12 (if the patient is the dependent): 271, 2110D, EB05 Plan Coverage Description</p> <p>Cache: response_dependent_el_or_ben . plan_coverage_description</p>
7	Time Period Qualifier	Con	<p>At least one of the elements ZEB-2 through ZEB-13 must not be empty.</p> <p>VistA: 365.02, .07 TIME PERIOD QUALIFIER</p> <p>X12 (if the patient is the subscriber): 271, 2110C, EB06 Time Period Qualifier</p> <p>Cache (if the patient is the subscriber): response_subscriber_el_or_ben . time_period_qualifier</p> <p>X12 (if the patient is the dependent): 271, 2110D, EB06 Time Period Qualifier</p> <p>Cache (if the patient is the dependent): response_dependent_el_or_ben . time_period_qualifier</p>
8	Monetary Amount	Con	<p>At least one of the elements ZEB-2 through ZEB-13 must not be empty.</p> <p>VistA: 365.02, .08 MONETARY AMOUNT</p> <p>X12 (if the patient is the subscriber): 271, 2110C, EB07 Monetary Amount</p> <p>Cache (if the patient is the subscriber): response_subscriber_el_or_ben . monetary_amount</p> <p>X12 (if the patient is the dependent): 271, 2110D, EB07 Monetary Amount</p> <p>Cache (if the patient is the dependent): response_dependent_el_or_ben . monetary_amount</p>

Sequence	Element Name	Use	Description
9	Percent	Con	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .09 PERCENT X12 (if the patient is the subscriber): 271, 2110C, EB08 Percent Cache (if the patient is the subscriber): response_subscriber_el_or_ben . percent X12 (if the patient is the dependent): 271, 2110D, EB08 Percent Cache (if the patient is the dependent): response_dependent_el_or_ben . percent
10	Quantity Qualifier	Con	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .1 QUANTITY QUALIFIER X12 (if the patient is the subscriber): 271, 2110C, EB09 Quantity Qualifier Cache (if the patient is the subscriber): response_subscriber_el_or_ben . quantity_qualifier X12 (if the patient is the dependent): 271, 2110D, EB09 Quantity Qualifier Cache (if the patient is the dependent): response_dependent_el_or_ben . quantity_qualifier
11	Benefit Quantity	Con	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .011 Quantity X12 (if the patient is the subscriber): 271, 2110C, EB10 Quantity (Benefit Quantity) Cache (if the patient is the subscriber): response_subscriber_el_or_ben . benefit_quantity X12 (if the patient is the dependent): 271, 2110D, EB10 Quantity (Benefit Quantity) Cache (if the patient is the dependent): response_dependent_el_or_ben . benefit_quantity
12	Authorization or Certification Indicator	Con	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .12 AUTHORIZATION/CERTIFICATION X12 (if the patient is the subscriber): 271, 2110C, EB11 Yes/No Condition or Response Code (Authorization or Certification Indicator) Cache (if the patient is the subscriber): response_subscriber_el_or_ben . authorization_or_certification X12 (if the patient is the dependent): 271, 2110D, EB11 Yes/No Condition or Response Code (Authorization or Certification Indicator) Cache (if the patient is the dependent): response_dependent_el_or_ben . authorization_or_certification

Sequence	Element Name	Use	Description
13	In Plan Network Indicator	Con	At least one of the elements ZEB-2 through ZEB-13 must not be empty. VistA: 365.02, .13 IN PLAN  X12 (if the patient is the subscriber): 271, 2110C, EB12 Yes/No Condition or Response Code (In Plan Network Indicator)  Cache (if the patient is the subscriber): response_subscriber_el_or_ben . in_plan_network_indicator  X12 (if the patient is the dependent): 271, 2110D, EB12 Yes/No Condition or Response Code (In Plan Network Indicator)  Cache (if the patient is the dependent): response_dependent_el_or_ben . in_plan_network_indicator

### Eligibility Response NTE Segment

Sequence	Element Name	Use	Description
1	Set ID – NTE (SI 4)	Req	Sequential number of lines of text in the message, running from 1 by 1.
3	Comment (FT 65,536)	Req	VistA: 365.02, 2 NOTES  X12 (if the patient is the subscriber): 271, 2110C, MSG-3 Free Form Message Text  Cache (if the patient is the subscriber): response_subscriber.message_text  X12 (if the patient is the dependent): 271, 2110D, MSG-3 Free Form Message Text  Cache (if the patient is the dependent): response_dependent.message_text

### Eligibility Inquiry Problem Messages

There are two types of Inquiry Problem Messages. One type of message occurs when EC receives an HL7 message from a VistA facility, it is validated. If data is found missing or inaccurate so that translation to the X12 270 message cannot be done correctly, EC sends an email message to EC support staff for resolution. This is one type of Inquiry Problem message. The other type of Inquiry Problem message is after EC has sent the X12 270 messages on to the Payer and the Payer returns it with an error in the X12 'AAA' segment. Some error codes may be returned to the VistA facility as an Inquiry Problem Message for handling and some errors may remain with EC for resolution. The message event is the same for either Inquiry Problem type. The acknowledgement event is constructed of the following HL7 segments in the order as listed:

MSH – Message Header  
MSA – Message Acknowledgement

The message notation is:

MSH MSA

### Eligibility Inquiry Problem MSH Segment

The MSH segment is a header which is used by the Eligibility Communicator for IIV to direct a response message back to the appropriate VistA site.

Sequence	Element Name	Use	Description
1	Field Separator	Req	" "
2	Encoding Characters	Req	"^~\&"
3	Sending Application	Req	"IIV EC"
4	Sending Facility		
4-1	Site Number	Req	EC's station number VistA: 870,.02 INSTITUTION Cache: iiv.site_number
4-2	Site Domain Name	Req	EC's Domain Name System name, e.g. IIV.AUSTIN.VA.GOV VistA: 870,.03 DOMAIN Cache: iiv.domain_name
4-3	DNS	Req	"DNS" Cache: (no mapping)
5	Receiving Application	Req	"IIV VistA"
6	Receiving Facility		
6-1	Site Number	Req	The VistA site's station number VistA: 869.3, .04 INSTITUTION Cache: site.site_number
6-2	Site Domain Name	Req	The VistA site's Domain Name System name, e.g. AUGUSTA.MED.VA.GOV VistA: 869.3, .02 DOMAIN Cache: site.domain_name
6-3	DNS	Req	"DNS" Cache: (no mapping)
7	Date/Time of Message	Req	Date/Time EC created the Message was created. For the format, see paragraph below – Date/Time of Message Format Details. Cache: (no mapping)
9	Message Type	Req	"RPI^I01"
10	Message Control ID	Req	Unique number assigned by EC eligibility_inquiry . response_message_control_id
12	Version ID	Req	"2.4"

Sequence	Element Name	Use	Description
15	Accept Acknowledgment Type	Req	“AL” = Always
16	Application Acknowledgment Type	Req	“NE”=Never
17	Country Code	Req	“US”

### Date/Time of Message Format

The format for MSH-7, Date/Time of Message, is YYYYMMDDHHMMSSZZZZZ where:

- YYYY is the 4-digit year, e.g. “2002”.
- MM is the month number, ranging from “01” to “12”.
- DD is the day number within the month, ranging from “01” to “31”.
- HH is the hour from “00” to “23”.
- MM is the minute from “00” to “59”.
- SS is the second from “00” to “59”.
- ZZZZZ represents the time zone as a leading signed value time offset from Greenwich Mean Time of the form HHMM using the same convention for HH and MM as given above. For example, Eastern Daylight Time (EDT) is given as “-0400”.

### Eligibility Inquiry Problem MSA Segment

The MSA Segment contains information sent while acknowledging another message. The Eligibility Communicator is sending error acknowledgements back to the VistA facility for review and resolution. After correction, the message may be resent to EC if one of the ‘Delayed Acknowledgement Type’ codes indicates that resubmission is permissible.

Sequence	Element Name	Use	Description
1	Acknowledgment Code	Req	“AE”=Error
2	Message Control ID	Req	Returned Message Control ID. This should match the sending message’s Message Control ID. VistA: 365, .01 MESSAGE CONTROL ID Cache: eligibility_inquiry.message_control_id
3	Text Message	Con	Any error message that does not conform to the X12 Error Codes stored in Sequence #5.  Either MSA-3 is not empty, or MSA-5 and –6 are not empty. All three are not to be non-empty in an MSA segment. VistA: 365, 4.01 ERROR TEXT Cache: (no mapping)



Sequence	Element Name	Use	Description
4	Expected Sequence Number	Req	Trace Number as a numeric string 9 characters in length. VistA: 365, .09 TRACE NUMBER X12: 271, IEA02 Interchange Control Number Cache: response_trace_number . trace_number (where trace_type_code = '1', reference identification is trace number)
5	Delayed Acknowledgement Type	Con	One of: “C”=Please Correct and Resubmit “N”=Resubmission Not Allowed “R”=Resubmission Allowed “W”=Please Wait 30 Days and Resubmit “X”=Please Wait 10 Days and Resubmit “Y”=Do Not Resubmit; We Will Hold Your Request and Respond Again Shortly “P”=Please Resubmit Original Transaction “S”=Do Not Resubmit; Inquiry Initiated to a Third Party  Either MSA-5 and MSA-6 are not empty, or MSA-3 is not empty. All three may not be present in the same MSA segment. If either MSA-5 or MSA-6 is not empty, then both must be not empty. VistA: 365, 1.15 ERROR ACTION X12: 271, 2000A — Information Source Level, AAA04 Follow-up Action Code; or 271, 2100A — Information Source Name, AAA04 Follow-up Action Code; or 271, 2100B — Information Receiver Name, AAA04 Follow-up Action Code; or 271, 2100C — Subscriber Name, AAA04 Follow-up Action Code; or 271, 2110C — Subscriber Eligibility or Benefit Information, AAA04 Follow-up Action Code; or 271, 2100D — Dependent Name, AAA04 Follow-up Action Code; or 271, 2110D — Dependent Eligibility or Benefit Information, AAA04 Follow-up Action Code Cache:
6	Error Condition	Con	The Reject Reason Code from one of seven locations within a 271 reporting a problem. VistA: 365, 1.14 ERROR CONDITION X12: 271, 2000A — Information Source Level, AAA03 Reject Reason Code; or 271, 2100A — Information Source Name, AAA03 Reject Reason Code; or 271, 2100B — Information Receiver Name, AAA03 Reject Reason Code; or 271, 2100C — Subscriber Name, AAA03 Reject Reason Code; or 271, 2110C — Subscriber Eligibility or Benefit Information, AAA03 Reject Reason Code; or 271, 2100D — Dependent Name, AAA03 Reject Reason Code; or 271, 2110D — Dependent Eligibility or Benefit Information, AAA03 Reject Reason Code Cache:

## Table Updates

The Eligibility Communicator broadcasts updates of certain tables in the Cache to the VistA systems. These broadcasts include the changes to the payer table, and other tables specific to eligibility and benefit data in the eligibility responses from the payers.

The Eligibility Communicator broadcasts a table change, row added, updated or deleted, by sending a table update message to each VistA site registered in the Cache. Each VistA system in turn sends a table update acknowledgement back to the Communicator. Lacking an acknowledgement from a VistA system, the Communicator reissues the table update message to that system after eight hours and repeats sending the message every eight hours thereafter until an acknowledgement is received or the site is marked as disconnected in the Cache.

Table updates to the Cache are repeated in the same order to the VistA sites. Further, each update is acknowledged before the next one is sent in order to assure the sequence is properly without possible overruns (the second update wins a race condition with the first update and so is applied before the first).

All table messages are an MFN^M01 event. When a VistA site initially installs the IIV software, the Eligibility Communicator for IIV is notified via an MFN^M01 message. The EC sends all current Payer identifications to the VistA site as part of this enrollment process. Any subsequent modifications or additions to the Payer table maintained by the EC are sent in the same manner.

The other tables include the following:

- Eligibility or Benefit Information Table (maps to X12 EB01)
- Coverage Level Code Table (maps to X12 EB02)
- Service Type Code Table (maps to X12 EB03)
- Insurance Type Code Table (maps to X12 EB04)
- Time Period Qualifier Table (maps to X12 EB06)
- Quantity Qualifier Table (maps to X12 EB09)
- Error Condition Table (maps to X12 AAA03)
- Error Action Table (maps to X12 AAA04)
- Contact Qualifier Table (maps to X12 PER03, PER05, PER07)

The table event is constructed of the following HL7 segments in the order listed:

MSH – Message Header  
MFI – Master File Identifier  
MFE – Master File Entry

For Payer table updates, the required segments are MSH, MFI, and MFE.

For both cases, the message notation is:

MSH MFI MFE

### Table Update MSH Segment

The MSH segment is a header which is used by the Eligibility Communicator for IIV to direct a Payer Table update to all VistA sites.

Sequence	Element Name	Use	Definition
1	Field Separator	Req	“ ”
2	Encoding Characters	Req	“^~\&”
3	Sending Application	Req	“IIV EC”
4	Sending Facility		
4-1	Site Number	Req	EC’s station number VistA: 870,.02 INSTITUTION Cache: iiv.site_number
4-2	Site Domain Name	Req	EC’s Domain Name System name, e.g. IIV.AUSTIN.VA.GOV VistA: 870,.03 DOMAIN Cache: iiv.domain_name
4-3	DNS	Req	“DNS” Cache: (no mapping)
5	Receiving Application	Req	“IIV VistA”
6	Receiving Facility		
6-1	Site Number	Req	The VistA site’s station number VistA: 869.3, .04 INSTITUTION Cache: site.site_number
6-2	Site Domain Name	Req	The VistA site’s Domain Name System name, e.g. AUGUSTA.MED.VA.GOV VistA: 869.3, .02 DOMAIN Cache: site.domain_name
6-3	DNS	Req	“DNS” Cache: (no mapping)
7	Date/Time of Message	Req	Date/Time the Message was created. For the format, see paragraph below – Date/Time of Message Format Details.
9	Message Type	Req	“MFN^M01”
10	Message Control ID	Req	Sequential number assigned by the Eligibility Communicator.
11	Processing ID	Req	“P”=Processing “T”=Testing
12	Version ID	Req	“2.4”

Sequence	Element Name	Use	Definition
15	Accept Acknowledgement	Req	“AL” = Always
16	Application Acknowledgment Type	Req	“NE” = Never
17	Country Code	Req	“US”

### Date/Time of Message Format

The format for MSH-7, Date/Time of Message, is YYYYMMDDHHMMSSZZZZZ where:

- YYYY is the 4-digit year, e.g. “2002”.
- MM is the month number, ranging from “01” to “12”.
- DD is the day number within the month, ranging from “01” to “31”.
- HH is the hour from “00” to “23”.
- MM is the minute from “00” to “59”.
- SS is the second from “00” to “59”.
- ZZZZZ represents the time zone as a leading signed value time offset from Greenwich Mean Time of the form HHMM using the same convention for HH and MM as given above. For example, Eastern Daylight Time (EDT) is given as “-0400”.

### Table Update MFI Segment

The MFI Segment is used to identify the site-specific master file.

Sequence	Element Name	Use	Description
1	Master File Identifier	Req	“365.12^IIV Payer Table” “365.011^Eligibility or Benefit Information Table” “365.012^Coverage Level Code Table” “365.013^Service Type Code Table” “365.014^Insurance Type Code Table” “365.015^Time Period Qualifier Table” “365.016^Quantity Qualifier Table” “365.017^Error Condition Table” “365.018^Error Action Table” “365.021^Contact Qualifier Table”
3	File-Level Event Code	Req	“UPD”=Change file records as defined in the record-level event codes for each record that follows
6	Response Level Code	Req	“NE”=Never. No application-level response needed

### Table Update MFE Segment

The MFE Segment identifies each of the records for the site-specific master file.

Sequence	Element Name	Use	Description
1	Record-Level Event Code	Req	One of: MAD=Add record to master file MUP=Update record for master file MDC=Deactivate: discontinue using record in master file, but do not delete from database MAC=Reactivate deactivated record
3	Effective Date/Time	Req	Effective Date/Time (If MDC then the deactivate date/time) VistA: If MFI-1 = "365.12^IIV Payer Table" and it is an MDC then 365.121, .12 DATE/TIME DEACTIVATED
4	Primary Key Value - MFE	Req	See the following two tables for the possible values.
5	Primary Key Value Type	Req	"CE" Coded Element

### MFE-4 Primary Key Value for the Payer Table Updates

MFE Seq	Element Name	Use	Definition
4-1	Payer ID	Req	Payer ID is the VA National Payer ID before an update to the payer in the Cache. VistA: 365.12, .02 VA NATIONAL ID Cache: payer . va_national_payer_id
4-2	New Payer ID	Req	New Payer ID is the VA National Payer ID after the update. If the payer ID changes in the update, the value before the change is Payer ID and the value after the change is New Payer ID. In the case of a new payer, or one whose ID did not change, then Payer ID and New Payer ID have the unchanged ID. VistA: 365.12, .02 VA NATIONAL ID Cache: payer . va_national_payer_id
4-3	Payer Name	Req	The payer's name. VistA: 365.12, .01 PAYER NAME Cache: payer . payer_name
4-4	Institutional ID	Opt	The ID used to identify the payer in institutional claims submitted to WebMD. VistA: 36, 3.04 EDI ID NUMBER - INST Cache: payer . institutional_id

<b>MFE Seq</b>	<b>Element Name</b>	<b>Use</b>	<b>Definition</b>
4-5	Professional ID	Opt	<p>The ID used to identify the payer in professional claims submitted to WebMD.</p> <p>VistA: 36, 3.02 EDI ID NUMBER - PROF</p> <p>Cache: payer . professional_id</p>
4-6	Application	Req	<p>Identifies the application.</p> <p>“IIV”</p> <p>VistA: 365.121, .01 APPLICATION</p>
4-7	Status	Req	<p>Whether the national connection is enabled. Values are “Y” and “N”.</p> <p>VistA: 365.121, .02 NATIONAL ACTIVE</p> <p>Cache: payers_applications . enabled. If this column’s value is NULL, then “N” is this element’s value.</p>
4-8	May Send SSN to Payer	Req	<p>Whether VistA may send social security numbers (SSN) in PID-19 SSN Number – Patient, and GT1-2 Guarantor SSN in eligibility inquiry messages sent to this payer. Values are “Y” and “N”.</p> <p>VistA: 365.121, .1 TRANSMIT SSN</p> <p>Cache: payers_applications . may_send_ssn_to_payer. If this column’s value is NULL, then “N” is this element’s value.</p>
4-9	Uses SSN as Member ID	Req	<p>Whether VistA may try the SSN as the member (subscriber) ID in HL7 eligibility inquiry messages. Values are “Y” and “N”.</p> <p>VistA: 365.121, .09 USE SSN FOR SUBSCRIBER ID</p> <p>Cache: payers_applications . uses_ssn_as_member_id. If this column’s value is NULL, then “N” is this element’s value.</p>
4-10	Inquiry Needs Subscriber ID	Req	<p>Whether VistA may only issue inquiries that include the subscriber (member) ID to the payer. Values are “Y” and “N”.</p> <p>VistA: 365.121, .08 IDENT REQUIRES SUBSCRIBER ID</p> <p>Cache: payers_applications . inquiry_needs_subscriber_ID. If this column’s value is NULL, then “N” is this element’s value.</p>
4-11	Future Service Days	Opt	<p>This value is the number of days into the future that the service date is allowed to be for a particular payer.</p> <p>Service dates that are sent in the eligibility inquiry are potentially adjusted to fall within the range that is defined by this parameter.</p> <p>If this value is not defined (is empty or not present) then there is no restriction as to how far into the future the service date may be.</p> <p>VistA: 365.121, .14 FUTURE SERVICE DAYS</p> <p>Cache: payers_applications . future_service_date. If this column’s value is NULL, then NULL is this element’s value.</p>

MFE Seq	Element Name	Use	Definition
4-12	Past Service Days	Opt	<p>This value is the number of days into the past that the service date is allowed to be for a particular payer.</p> <p>Service dates that are sent in the eligibility inquiry are potentially adjusted to fall within the range that is defined by this parameter.</p> <p>If this value is not defined (is empty or not present) then there is no restriction as to how far into the past the service date may be.</p> <p>VistA: 365.121, .15 PAST SERVICE DAYS</p> <p>Cache: payers_applications . past_service_date. If this column's value is NULL, then NULL is this element's value.</p>

#### Primary Key Value – Eligibility Response MFE Sequence 4

VistA Table Name	Value for the Primary Key Value Field
X12 271 ELIGIBILITY/BENEFIT (#365.011)	<p><i>Code^Description</i></p> <p>VistA: 365.011, .01 CODE; 365.011, .02 DESCRIPTION</p> <p>Cache: eligibility_or_benefit_info . eligibility_or_benefit_info^eligibility_or_benefit_info. definition</p>
X12 271 COVERAGE LEVEL (#365.012)	<p><i>Code^Description</i></p> <p>VistA: 365.012, .01 CODE; 365.012, .02 DESCRIPTION</p> <p>Cache: coverage_level. Coverage_level_code^coverage_level . definition</p>
X12 271 SERVICE TYPE (#365.013)	<p><i>Code^Description</i></p> <p>VistA: 365.013, .01 CODE; 365.013, .02 DESCRIPTION</p> <p>Cache: service_type . service_type_code^service_type . definition</p>
X12 271 INSURANCE TYPE (#365.014)	<p><i>Code^Description</i></p> <p>VistA: 365.014, .01 CODE; 365.014, .02 DESCRIPTION</p> <p>Cache:</p>
X12 271 TIME PERIOD QUALIFIER (#365.015)	<p><i>Code^Description</i></p> <p>VistA: 365.015, .01 CODE; 365.015, .02 DESCRIPTION</p> <p>Cache: time_period . time_period_qualifier^time_period_format . definition</p>
X12 271 QUANTITY QUALIFIER (#365.016)	<p><i>Code^Description</i></p> <p>VistA: 365.016, .01 CODE; 365.016, .02 DESCRIPTION</p> <p>Cache: quantity . quantity_qualifier^quantity . definition</p>
X12 271 ERROR CONDITION (#365.017)	<p><i>Code^Description</i></p> <p>VistA: 365.017, .01 CODE; 365.017, .02 DESCRIPTION</p> <p>Cache: error_condition. error_codition^error_condition. definition</p>

<b>VistA Table Name</b>	<b>Value for the Primary Key Value Field</b>
X12 271 ERROR ACTION (#365.018)	<i>Code^Description</i> VistA: 365.018, .01 CODE; 365.018, .02 DESCRIPTION Cache: error_action. error_action^error_action.definition
Date Code Table	<i>Code^Description</i> VistA: (no mapping) Cache: date_time . date_time_qualifier^date_time. description
X12 271 CONTACT QUALIFIER (#365.021) Contact Qualifier Table	<i>Code^Description</i> VistA: 365.021, .01 CODE; 365.021, .02 DESCRIPTION Cache: Contact_function . contact_function_code^Contact_function.definition

*Status* indicates whether the indicated application may communicate with the identified payer. Communication is enabled through Austin if the value is “ON”. Communication is disabled if the value is “OFF”. No other value for *Status* is acceptable.



## APPENDIX A – TABLE OF IIV GENERATED MAILMAN MESSAGES

The IIV interface will create a MailMan message under certain circumstances. This chart will help to identify when these messages are triggered and from where. If the recipient of the message was not defined, then the message will be rerouted to the 'Postmaster'.

Triggering Event	Routine Reference	Recipients	Subject	Message Text
Error returned when adding an Insurance Buffer entry	IBCNEBF+156	MESSAGES MAILGROUP (#350.9, 51.04)	Error creating Buffer Entry	Error returned by \$ADDSTF^IBCNEBES: {Error Message} Values: Patient DFN = {Patient IEN} Pt Ins Record IEN = {Patient Ins IEN} Please log a NOIS for this problem.
Error returned when creating an IIV Transmission Queue entry	IBCNEDE+199	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Problem: Trouble setting entry in File 365.1	Tried to create an entry in the IIV TRANSMISSION QUEUE File (#365.1) without success. Error encountered: {Error Message} The data that was to be stored is as follows: Transaction #: {Transaction #} Patient: {Patient Name} Extract: {Data Extract} Payer: {Payer Name} Please log a NOIS for this problem.
Unable to schedule the daily IIV Statistical report and distribute via MailMan	IBCNEDE+249	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Statistical Message Not Sent	TaskManager could not schedule the daily IIV MailMan message at the specified time of {DAILY MSG TIME (#350.9,51.03)}. This is defined in the IIV Site Parameters option.
Error returned when creating an outgoing HL7 message	IBCNEDEQ+27	MESSAGES MAILGROUP (#350.9, 51.04)	IIV HL7 Creation Error	Error – {HL7 Result} occurred when trying to create the outgoing HL7 message for Patient: {Patient Name} and Payer: {Payer Name} Please log a NOIS for this problem.

Triggering Event	Routine Reference	Recipients	Subject	Message Text
Error when NUMBER RETRIES (File 350.9, Field 51.06) is not defined and the timeout has elapsed without a response (*only if FAILURE MSG flag is YES)	IBCNEDEQ+52	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Communication Error	VistA was unable to electronically confirm insurance for Patient: {Patient Name} and Payer: {Payer Name}. A single attempt was made to electronically confirm the insurance with this payer.
The number of retries have been exceeded indicating that a communication failure has occurred (*only if FAILURE MSG flag is YES)	IBCNEDEQ+75	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Communication Error	VistA was unable to electronically confirm insurance for Patient: {Patient Name} and Payer: {Payer Name}.
Error creating an IIV Response File entry	IBCNEDEQ+137	MESSAGES MAILGROUP (#350.9, 51.04)	Error creating Response	{Error Messages returned by FILE^DIE call} Please log a NOIS for this problem.
A response has not been received in TIMEOUT DAYS (IB SITE PARAMETERS field) (*only if TIMEOUT MSG flag is YES)	IBCNEDEQ+149	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Communication Timeout	No Response has been received within the defined failure days of {Timeout Days} for Patient: {Patient Name} and Payer: {Payer Name}
Error returned when creating an outgoing HL7 message to deactivate IIV	IBCNEHLD+57	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Deactivation Failure	IIV Deactivation Message not created. Error – {HL7 Result} Please log a NOIS for this problem.
MSH Segment is not the first segment in the HL7 message when processing responses	IBCNEHLI+78	MESSAGES MAILGROUP (#350.9, 51.04)	INCOMING IIV HL7 PROBLEM	MSH Segment is not the first segment found. Please log a NOIS for this problem.
Protocol not defined for the	IBCNEHLI+78	MESSAGES MAILGROUP	INCOMING IIV HL7	Unable to find a protocol for Event = {Event Type}

Triggering Event	Routine Reference	Recipients	Subject	Message Text
HL7 Event Type when processing responses		(#350.9, 51.04)	PROBLEM	Please log a NOIS for this problem
ACK – AE received when processing responses	IBCNEHLI+78	MESSAGES MAILGROUP (#350.9, 51.04)	INCOMING IIV HL7 PROBLEM	N/A
Error returned when creating/updating an IIV Response File entry	IBCNEHLI+78	MESSAGES MAILGROUP (#350.9, 51.04)	INCOMING IIV HL7 PROBLEM	{Error messages array from multiple calls to FILE^DIE} and may also include National ID: {VA National ID} not found in Payer Table for Trace Number: {Trace #} OR Not able to create a Response for an unsolicited response for Trace Number: {Trace #}
Error returned when creating/updating non-Payer files	IBCNEHLI+78	MESSAGES MAILGROUP (#350.9, 51.04)	INCOMING IIV HL7 PROBLEM	File Number not found in MFN message OR File {File Number} not found in the Data Dictionary
Error(s) returned when creating the HL7 Registration message for Vitria	IBCNEHLM+116	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Registration Failure	IP Address or Port is not defined. OR The Contact Person is not defined in the IIV Site Parameters. OR The office phone number of the IIV Contact Person is not defined (File 200, Field .132). OR The email address of the IIV Contact Person is not defined (File 200, Field .151). OR The “HL7 Response Processing Method” selected is Batch but the HL7 Batch Start and End Times are blank.

Triggering Event	Routine Reference	Recipients	Subject	Message Text
				OR The following IIV Site Parameters are not defined: “Days between electronic reverification checks” is blank. OR “Look at a patient’s inactive insurance?” is blank. OR “HL7 Response Processing Method” is blank.
Error returned when creating/updating an IIV Response File entry	IBCNEHLR+79	MESSAGES MAILGROUP (#350.9, 51.04)	Error creating IIV Response	An invalid Eligibility Status flag {Status Flag} was received for site {VA National ID}, trace number {Trace #} and message control id {Message Control ID}. It has been interpreted as an ambiguous response in VistA.
Message received from the Eligibility Communicator could not be processed.	IBCNEHLR+193	MESSAGES MAILGROUP (#350.9, 51.04)	IMPORTANT: Error While Processing Response Message from the EC	IMPORTANT: Error While Processing Response Message from the EC. ***IRM*** Please log a NOIS because the response message received from the Eligibility Communicator could not be processed. Programming changes may be necessary to properly handle the response. The associated trace is {Trace #}. If applicable, please review the response with the IIV Response Report by Trace #.
Date of Death received in insurance verification response	IBCNEHLS+135	MESSAGES MAILGROUP (#350.9, 51.04)	Date of Death Received	A Date of Death ({Date of Death}) was received for patient: {Patient Name} / {Patient SSN} from payer {Payer Name}. There is

Triggering Event	Routine Reference	Recipients	Subject	Message Text
				no current Date of Death on file for this patient.
Date of Death received in insurance verification response does not match the Date of Death on file	IBCNEHLS+141	MESSAGES MAILGROUP (#350.9, 51.04)	Variant Date of Death	A Date of Death ({Date of Death}) was received for patient: {Patient Name} / {Patient SSN} from payer {Payer Name}. This Date of Death does not currently match the Date of Death ({Patient Date of Death}) on file for this patient.
New Error Action code received from the Eligibility Communicator	IBCNEHLS+257	MESSAGES MAILGROUP (#350.9, 51.04), iiv@daou.com	Message Control Id Field is Blank	A response was received with a blank Message Control ID and Trace # {Trace #}, ICN #: {ICN #}, Patient: {Patient Name}. It is likely that there are communication issues with the EC. This response cannot be processed. Please log a NOIS.
IIV payer tables may be out of sync with master list.	IBCNEHLT+108	MESSAGES MAILGROUP (#350.9, 51.04)	IIV payer tables may be out of sync with master list.	{IBCN Type} {IBCN Action} action received. Payer and/or Application may be unknown. VA National: {VA National ID} Payer Name: {Payer Name}, Application: {Application Name}. Log a NOIS for this issue. Please include in the NOIS that VistA did not receive the required information or the accurate information to add/update this Payer.
IIV Date becomes available for purging.	IBCNEKI2+63	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Data Eligible for Purge	ATTENTION IRM: There are IIV TRANSMISSION QUEUE and IIV RESPONSE records eligible to be purged. Please run IBCNE PURGE IIV DATA – Purge IIV Transactions, if you would like to purge the eligible records. To purge IIV data, journaling should be temporarily

Triggering Event	Routine Reference	Recipients	Subject	Message Text
				disabled for ^IBCN.
Unable to schedule the background compile of the Most Popular Insurance Company List	IBCNEPST+64	MESSAGES MAILGROUP (#350.9, 51.04)	Most Popular Insurance Company List was not compiled	The Most Popular Insurance Company List could not be compiled for {TODAY-365 Days} to {TODAY} because task could not be scheduled in the background.
Error(s) identified during Batch Extract parameter set-up in IB SITE PARAMETERS	IBCNEPST+150	PATCHES, iiv@daou.com	IIV Batch Extract# {Batch IEN} not set-up properly	{Error messages returned by FILE^DIE}
Daily IIV Statistical Report via MailMan	IBCNERP9+122	MESSAGES MAILGROUP (#350.9, 51.04)	** IIV Statistical Rpt **	IIV Statistical Report with data for the previous 24 hours. ** END OF REPORT** OR ** NO DATA FOUND**
Inconsistent IIV responses for IIV queue.	IBY271PS+46	MESSAGES MAILGROUP (#350.9, 51.04)	IIV Responses for an IIV Transmission Queue entry are inconsistent.	IIV Transmission Queue entry {Transmission Queue Entry} has a status of Response Received. None of the associated responses have this status. Please create a NOIS specifying that this Transmission Queue entry is inconsistent with its associated responses and, as a result, its status could not be adjusted.
Most popular insurance sites.	IBY271PS+77	MESSAGES MAILGROUP (#350.9, 51.04)	Most Popular Insurance Site Parameter	As part of patch IB*2.0*271, the Most Popular Insurance functionality, accessed by the MP action of the IIV Site Parameters, has been modified. Prior to this patch, the Most Popular Insurance Companies were automatically identified based on the number of authorized bills created. IB*2.0*271 has changed two aspects of the functionality. The list will now contain payers rather

Triggering Event	Routine Reference	Recipients	Subject	Message Text
				<p>than insurance companies. In addition, these payers will be manually entered by each site. As a result of these changes. The prior values of this list have been deleted. If your site has elected to use this functionality, please update the table with the payers that are most commonly used in your facility and who are nationally active for IIV. Please select option, “IBJ MCCR SITE PARAMETERS”, action MP(Most Popular Payers) within the IIV parameters to populate the list.</p>

## APPENDIX B – INCOMING DATA MAPPING

The following table identifies the mapping of each data element of an incoming eligibility response message (HL7 Message Type: RPI^I01) to the corresponding storage location within the VistA Files. The right-most column indicates the storage location for each data element upon acceptance of the Insurance Buffer entry information.

<b>IIV Response File ( #365) →</b>	<b>Insurance Buffer File (#355.33) →</b>	<b>(Final disposition)</b>
MESSAGE CONTROL ID Field # .01	N/A	N/A
PATIENT Field # .02	N/A	N/A
PAYER Field # .03	N/A	N/A
BUFFER ENTRY Field # .04	N/A	N/A
TRANSMISSION QUEUE Field # .05	N/A	N/A
TRANSMISSION STATUS Field # .06	N/A	N/A
DATE/TIME RECEIVED Field # .07	N/A	N/A
DATE/TIME CREATED Field # .08	N/A	N/A
TRACE NUMBER Field # .09	N/A	N/A
RESPONSE TYPE Field # .1	N/A	N/A
NAME OF INSURED Field # 1.01	NAME OF INSURED Field # 60.07	NAME OF INSURED File # 2.312 Field # 17
INSURED DOB Field # 1.02	INSURED'S DOB Field # 60.08	INSURED'S DOB File # 2.312 Field # 3.01
INSURED SSN Field # 1.03	INSURED'S SSN Field # 60.09	INSURED'S SSN File # 2.312 Field # 3.05
INSURED SEX Field # 1.04	N/A	N/A
SUBSCRIBER ID Field # 1.05	SUBSCRIBER ID Field # 60.04	SUBSCRIBER ID File # 2.312 Field # 1
GROUP NAME Field # 1.06	GROUP NAME Field # 40.02	GROUP NAME File # 355.3 Field # .03
GROUP NUMBER Field # 1.07	GROUP NUMBER Field # 40.03	GROUP NUMBER File # 355.3 Field # .04
WHOSE INSURANCE Field # 1.08	WHOSE INSURANCE Field # 60.05	WHOSE INSURANCE File # 2.312 Field # 6
PT RELATIONSHIP TO INSURED Field # 1.09	PT. RELATIONSHIP TO INSURED Field # 60.06	PT. RELATIONSHIP TO INSURED File # 2.312 Field # 16
SERVICE DATE Field # 1.1	N/A	N/A
EFFECTIVE DATE Field # 1.11	EFFECTIVE DATE Field # 60.02	EFFECTIVE DATE OF POLICY File # 2.312 Field # 8
EXPIRATION DATE	EXPIRATION DATE	INSURANCE EXPIRATION



<b>IIV Response File ( #365) →</b>	<b>Insurance Buffer File (#355.33) →</b>	<b>(Final disposition)</b>
Field # 1.12	Field # 60.03	DATE File # 2.312 Field # 3
COORDINATION OF BENEFITS Field # 1.13	COORDINATION OF BENEFITS Field # 60.12	COORDINATION OF BENEFITS File # 2.312 Field # .2
ERROR CONDITION Field # 1.14	N/A	N/A
ERROR ACTION Field # 1.15	N/A	N/A
DATE OF DEATH Field # 1.16	N/A	N/A
CERTIFICATION DATE Field # 1.17	N/A	N/A
MEMBER ID Field # 1.18	N/A	N/A
ELIGIBILITY/BENEFIT Field # 2	N/A	N/A
CONTACT PERSON Field # 3	N/A	N/A
ERROR TEXT Field # 4.01	N/A	N/A

## APPENDIX C – TROUBLESHOOTING

IIV makes heavy use of HL7 messaging. Ensure that the HL7 globals have sufficient room for growth. Reference HL\*1.6\*19 patch documentation for further instructions. Also, reference the External Interfaces – HL7 Communications Setup section, in this manual, for specific IIV HL7 information.

This interface is dependant upon an IP address on which HL7 listens.

There are two HL7 Logical Links associated with this interface - the link to Austin is IIV EC. The link that used to be from Austin is IIV SERVER. The IIV SERVER has been shutdown and disabled by the local IRM, yet it is required by the software to still exist with its current definition.

### *How To Determine If Connectivity To Austin Is Lost...*

If the “Inquiries Sent” and “Responses Received” entries on the [IIV Statistical report](#) [IBCNE IIV STATISTICAL REPORT] both remain at zero while the “Queued Inquiries” entry on the report continues to increase over a period of time, then no IIV inquiries are being sent (See Section 6 of the Integrated Billing Insurance Identification and Verification Interface User Guide). If this situation occurs over a two days elapse and both the “Inquiries Sent” and “Responses Received” entries remain at zero, there is a communications problem.

### *How To Restore Connectivity To Austin...*

1. Verify that the names of the HL7 Logical Links were not changed. They must be “IIV EC” and “IIV SERVER”.
2. Verify the following settings for the HL7 Logical Link “IIV EC”:
  - a. The institution field is blank
  - b. The domain field is set to **IIV.VITRIA-EDLAAC.VA.GOV**
  - c. The AUTOSTART field is set to **enabled**
  - d. The TCP/IP address is set to **10.224.187.133**
  - e. The TCP/IP Port is set to **5100**
3. Verify the following settings for the HL7 Logical Link “IIV SERVER”:
  - a. The institution field and domain field are blank
  - b. The AUTOSTART field is set to **disabled**
  - c. The TCP/IP address is defined
  - d. The TCP/IP Port is set to **5100**
4. Verify that the HL7 Logical Link “IIV EC” is running.
5. Verify that the HL7 Logical Link “IIV SERVER” is still defined but shutdown.
6. Ask your IB Supervisor or insurance personnel who brought this communication issue to your attention, to review the IIV Statistical report the following day and confirm that connectivity has been restored with Austin.
7. If this does not resolve your communication with Austin for IIV ask the IB Supervisor or insurance personnel to log a NOIS with the VA support.

**Example – HL7 Logical Link**

```

CHOOSE 1-15: 11  HL MAIN MENU      HL7 Main Menu

      Systems Link Monitor
      Filer and Link Management Options ...
      Message Management Options ...
      Interface Developer Options ...
      Site Parameter Edit

Select HL7 Main Menu Option: FILER and Link Management Options

      SM  Systems Link Monitor
      FM  Monitor, Start, Stop Filers
      LM  TCP Link Manager Start/Stop
      SA  Stop All Messaging Background Processes
      RA  Restart/Start All Links and Filers
      DF  Default Filers Startup
      SL  Start/Stop Links
      PI  Ping (TCP Only)
      ED  Link Edit
      ER  Link Errors ...

Select Filer and Link Management Options Option: ED  Link Edit

Select HL LOGICAL LINK NODE: IIV
      1  IIV EC
      2  IIV SERVER

```

**Example – HL7 Logical Link “IIV EC”**

HL7 LOGICAL LINK	
<p style="text-align: center;">NODE: IIV EC</p> <p>INSTITUTION:</p> <p style="text-align: center;">DOMAIN: <b>IIV.VITRIA-EDI.AAC.VA.GOV</b></p> <p style="text-align: center;">AUTOSTART: <b>Enabled</b></p> <p>QUEUE SIZE: 10</p> <p style="text-align: center;">LLP TYPE: TCP</p>	

HL7 LOGICAL LINK	
<div style="border: 1px dashed black; padding: 5px; text-align: center;"> <p>[-----TCP LOWER LEVEL PARAMETERS-----]</p> <p>IIV EC</p> </div>	

TCP/IP SERVICE TYPE: CLIENT (SENDER)	
TCP/IP ADDRESS: <b>10.224.187.133</b>	
TCP/IP PORT: <b>5100</b>	
ACK TIMEOUT: 60	RE-TRANSMISION ATTEMPTS:
READ TIMEOUT: 60	EXCEED RE-TRANSMIT ACTION: restart
BLOCK SIZE:	SAY HELO:
STARTUP NODE:	PERSISTENT: NO
RETENTION: 60	UNI-DIRECTIONAL WAIT:
-----	
COMMAND:	Press <PF1>H for help    Insert

**Example – HL7 Logical Link “IIV SERVER”**

HL7 LOGICAL LINK	
-----	
NODE: IIV SERVER	
INSTITUTION:	
DOMAIN:	
AUTOSTART: <b>Disabled</b>	
QUEUE SIZE: 10	
LLP TYPE: TCP	

IIV SERVER	
-----	
[-----TCP LOWER LEVEL PARAMETERS-----]	
IIV SERVER	
TCP/IP SERVICE TYPE: SINGLE LISTENER	
TCP/IP ADDRESS: 10.224.187.133 (example only)	
TCP/IP PORT: <b>5100</b>	
ACK TIMEOUT: 40	RE-TRANSMISION ATTEMPTS:
READ TIMEOUT:	EXCEED RE-TRANSMIT ACTION: restart
BLOCK SIZE:	SAY HELO:
STARTUP NODE: ROU:	PERSISTENT:
RETENTION:	UNI-DIRECTIONAL WAIT:
-----	
COMMAND:	Press <PF1>H for help    Insert

## APPENDIX D – eIIV IMPLEMENTATION QUICK CHECKLIST (IB\*2.0\*184 only)

The following tasks must be accomplished before, during and after the eIIV patch IB\*2.0\*184 is installed at your medical center. This quick checklist identifies the order in which tasks must be completed and responsible parties for either performing an action or providing information. Please refer to the IIV Installation Guide for step-by-step instructions on how to complete these actions.

✓	Pre-Implementation Tasks	IRM	Revenue Coordinator and/or Insurance Supervisor
	Verify that required IB patches were installed.	x	
	Verify that the domain reflected in patch XM*DBA*153 was manually added to the system.	x	
	Identify members of the IBCNE IIV MESSAGE mail group.		x
✓	Patch Installation Task	IRM	Revenue Coordinator and/or Insurance Supervisor
	With the assistance of a system administrator (system manager) define the new IBCN global.	x	
	Ensure that all Integrated Billing users are logged off the system.	x	
	Install the IB*2.0*184 patch.	x	
	Enable journaling for the new ^IBCN global.	x	
✓	Post-Installation Tasks	IRM	Revenue Coordinator and/or Insurance Supervisor
	Add members to the IBCNE IIV MESSAGE mail group.	x	
	Assign security keys & menus to users.	x	
	Setup HL7 logical links for IIV	x	
	Configure the eIIV site parameters as recommended in the Installation Guide. IRM must provide assistance with setting up the eIIV Site Parameters that correspond with HL7 messages / traffic.	x	x

✓	Site Registration Tasks	IRM	Revenue Coordinator and/or Insurance Supervisor
	Execute the IBCNE IIV BATCH PROCESS option and wait for it to complete.	x	
	Check IBCNE IIV MESSAGE mail group messages. Proceed if no “problem” messages were received. Otherwise, reconcile any “problem” messages and start over.	x	
	Check the HL7 system monitor for incoming messages and verify that 350+ messages were received.	x	
	Check IBCNE IIV MESSAGE mail group messages again. Proceed if no “problem” messages were received. Otherwise, reconcile any “problem” messages and start over.	x	
	Confirm the HL7 logical link settings. Proceed if they have not been updated. Otherwise, start over.	x	
✓	Post-Registration Tasks	IRM	Revenue Coordinator and/or Insurance Supervisor
	Link insurance companies to payers.		x
	Enable the linked payers.		x
	Schedule the nightly IBCNE IIV BATCH PROCESS through TaskMan.	x	
	Use the IIV Site Parameters and gradually enable IIV extracts to begin sending inquires and receiving responses.		x

# GLOSSARY

EC	Eligibility Communicator – this refers to the National Health Insurance Cache database that is housed in the AAC in Austin, TX. The IIV software communicates with the Eligibility Communicator directly through HL7. The EC in turn searches its caches insurance information data, and communicates with Communication Partners (ex. WebMD) to create an eligibility response that is returned to the VistA system.
HIPAA	Health Insurance Portability and Accountability Act of 1996
HL7	Health Level Seven, a standardized application level communications protocol that enables systems to exchange information and to affect requests and responses. Basically, HL7 is an agreement between two HL7-compliant systems that specifies where to expect certain data in a stream of characters.
IB	Integrated Billing
MCCR	Medical Care Cost Recovery The collection of monies by the Department of Veterans Affairs (VA).
Required Variable	An attribute of a package interface. It is a variable that must exist in order for the interface's entry point to be called.
Security Key	Used in conjunction with locked options or functions. Only holders of this key may perform these options/functions. Used for options, which perform a sensitive task.